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FROM

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MERCHANDISING STUDIES OF THE STATES

Their Resources and Development

By

ARCHER WALL DOUGLAS

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With Preface by
MERLE THORPE

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1920

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PREFACE

The ambitious man, professional or business, longs to extend his field of operations. That is the yardstick of success. If a man stands still, after a while friends—and enemies—begin to talk quietly about him. So the enterprising man searches for new fields, scrutinizes new opportunities.

Every business is a shadow of some one man. Some shadows are short; some tremendously long. The long shadows come from the man who sees beyond his township, county, state, continent. Subtract the factors involved in a small business of $1,000 a year from those of a business of $1,000,000 a year, and you will get (1) desire; (2) ambition; (3) ability.

See America first! The proposition is so simple I hesitate to set it down. Many young and ambitious business men wrinkle their brows and study possibilities in China, India, and South America, overlooking those nearer at home. The leap into successful trade overseas is much shorter from a well-established domestic trade—and more natural. Wonderful opportunities lie in Arkansas, North Carolina, Michigan.

Mr. Douglas gives us in these "Merchandising Studies of the States" the benefit of a far-sighted business man's survey of these domestic possibilities which lie outside our own door. Don't be misled! There is no dark formula here for the reader who wishes to enlarge his business—that cannot be given; if it could, all the zest would be taken out of the contest. But there is here for the man who will patiently fill in between the

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lines, a chart drawn by one of America's successful business men, which will point the way to longer shadows and greater turnoyers.

MERLE THORPE

Washington, D. C.,
November 15, 1920.

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MERCHANDISING STUDIES OF THE STATES

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INTRODUCTION

Forehandedness

Every business of moment with country-wide connections and national interests must take some thought of the morrow. If it hopes not only to hold its own but to make that steady progress which marks and distinguishes the successful commercial organization, it must forecast its movements and plan of development, not in periods of months but rather by decades, and it may be by scores of years.

In every phase of business life that looks to the fruition of its activities there is always necessary the perception of great changes and great opportunities *before* they occur and *not afterwards*. A business enterprise is not an isolated unit working out its own salvation alone, but depends upon and is a part of the history of progress and development of the section of country in which it finds a market for its wares. It must know not only the existing conditions of the people and country which it serves but likewise the potentialities and possibilities of their future development. The means thereto is such close and intimate study of the situation as discloses both its present likelihood and also what the future holds in store.

It is the purpose of these chapters to set forth the story of certain states, as types of those studies in the development of the country that must be part of the policy of every great organization which seeks to found its business upon intelligent study of the possibilities and likelihoods of the future.

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Vision

It is a matter of common experience that shrewd investors have amassed great fortunes by early investments in unimproved lands which later became very valuable either for farm purposes or for building operations in great cities. This success is usually ascribed to mere blind luck. But it is oftener the result of far-sighted vision which perceived and analyzed the inevitable drift of civilization to the region in which the investment was made. In the case of a potential great city, as St. Louis on the Mississippi or Chicago on the Great Lakes, the problem was the direction which the growth of the city would take. Would it be westward as history shows is usually the case, or would it be north or south along the water's edge? It was usually sure that manufacturing and residence growths would not take the same trend. Then the question arose, how would they divide? In St. Louis, for instance, the picturesqueness of the river banks seemed to forecast a residential growth southward from the original settlements. But this proved to be only partially true. Finally, the trend of residences became westward, and manufacturing north and south.

City Growth

In the very beginning there arises the question as to whether the budding town will become a great city at all. In their inception all towns and cities exist mainly upon the surrounding country. What were the nature, character, and resources of this country, and the likelihood of its development?

Often, besides, there was the matter of competition particularly in the early stages of the community, from other ambitious and enterprising near-by cities. Which of two competitors would ultimately be the great city?

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There are a number of examples of competing cities—some near together, some divided merely by a river or an imaginary line—where one is a progressive community in all that the name implies and the other sunk in sloth and blind self-content. One of them would ultimately be successful, the other would finally be classed among the "also-rans." Which would succeed? In such emergencies the shrewd and far-seeing investor in land found only one solution to the problem, but as Mercutio said, " 'Twill do," for it was the spirit of the people.

Progress

There are certain cities whose growth was early perceived by observers of far-reaching vision, yet for whose existence none of the conventional reasons give sufficient answer. They are not natural "keys" to any particular section. They are not on a large watercourse, nor yet is their situation the gateway to any extensive section of the country. Why is Atlanta, or Indianapolis, or Rochester, or Kansas City, or Los Angeles? Again there is one sufficient answer—the spirit of the people.

In the last analysis, as will be developed in this and succeeding studies, that is likewise the answer to the development and progress, or their lack, in the story of every section or state of our country.

Opportunities

In every state in the Union the unceasing problem was, is, and always will be, the development of such resources as fortune has bestowed upon the commonwealth. It is one of the curious traits of human nature, typified in well-known verse, that all things look good at a distance and that it needs this distance to lend enchantment to the view. We fail constantly to comprehend that the

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things which most concern us and our welfare are near at hand and that the pot of gold is close beside us, if we can only see it, and not at the end of the rainbow. It is a common historic experience that emigrants from one state to another could often have done as well at home if they had shown the same aptitude for production and development which they displayed in their new abode.

The South and Arid West

It was perfectly obvious, over a generation ago, that the character of manufacturing in New England must radically change as time went on, that the things it produced must steadily shift from those close to raw material to finished articles requiring skilled labor. With these articles the cost of freight to their natural markets, the South and West, did not bear so great a proportion to the total cost. It was equally plain that when the problems of sufficient labor, both in quantity and quality, and of motive power were solved in the South Atlantic states, this section must ultimately become the cotton manufacturing center of the world. Nor could there be any longer any doubt that the South was entering upon an unprecedented career of undreamed of development when the destruction of the cattle tick was once undertaken, when it became certain that the mosquito was the only possible conveyor of malaria and yellow fever, and when the far-reaching effect of the invasion of the cotton-boll weevil was fully realized. In like manner when the possibilities of material development by irrigation were realized, it became apparent that the silent and hostile deserts of the West were to become the seat of a new and wonderful civilization such as adorned the history of ancient times in the stories of Egypt, Babylon, and Nineveh.

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Initiative

If the resources are not immediately obvious, then arises the test of the people as to whether they are content to accept surface indications and go no further than to utilize in a conventional way such resources as may be apparent, or whether they have that inquiring mind and natural initiative which will test to the uttermost the possibilities of the situation.

It was at one time noteworthy of certain sections of New England and of the South that they accepted without question the prevailing opinion that they were not fitted for the efficient and economical pursuit of certain agricultural industries, such as dairying, poultry raising, and fruit production. Because they placed extravagant and unwarranted stress upon manufacturing on the one hand or upon cotton culture on the other, they preferred largely to import from other states the milk, butter, eggs, chickens, and fruits which they consumed, under the mistaken economic notion that they could do this to greater advantage, paying for them in the products of their principal industries, than if they produced these necessaries themselves.

State Pride

In any such careful study of the states, one of the compelling elements in the situation is that state consciousness in which one commonwealth differs from another. This state consciousness is itself the result of the deep influence of climate and topography, of industrial experience, of history and tradition, of education, all operating upon a population of a particular blend of racial elements.

It is easy to account for the variations of state consciousness in such long-established communities as South

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Carolina and Massachusetts, after the moulding influences have had ample time to work themselves out. But it is not so easy to understand equally striking differences in some of the newer states whose history is largely recent, and in which tradition is mostly noticeable by its absence. Kansas, for instance, differs markedly in certain particulars from any of the four sister commonwealths which encompass her, however much the surface indications are of general similarity and likeness.

State Differences

Only as these essential differences become apparent in the course of study do we realize the momentous truth that each state is a separate and distinct entity, the composite expression of the traits and peculiarities of its people, and not merely a geographical expression with physical boundaries. It cannot be otherwise in a democratic country, or we should steadily, and probably almost unresistingly, drift into centralized federal control; because of a general likeness and homogeneity our people would readily be persuaded that such control meant greater national unity, and consequently more widespread public welfare.

Topography

In the effort to arrive at an understanding of the state consciousness nothing may be neglected, however insignificant or unpromising. Equally must there be that method of analysis and investigation which approaches the subject with an unbiased mind, a slate wiped clean of preconceived opinions which are usually wrong and misleading.

The natural conditions of the soil, climate, and resources of different states and different sections are

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infallible indexes to the nature and extent of their development and progress in the future. That is, for all save those who having eyes, see not. The topography of a country is all-important, since men are largely as their environment. The effect of surroundings is even more mental and spiritual than physical. Peoples of the great plains and the desert have broad mental as well as physical horizons, and their freedom of thought and freedom from the numbing influence of history and tradition are owing largely to that facility of communication due to ease of travel which brings them in constant contact with their fellowmen. The dwellers in the mountains and thickly forested districts are apt to stay much at home and to become encrusted with those local prejudices and provincialities which are the deadliest of all the enemies of true progress. Travel, which takes a man outside of himself, is the most far-reaching and enduring of all methods and modes of education and the most creative of human tolerance and human sympathy.

Climate

Moreover, in the survey of every nation and people the climate is a matter of prime importance. Lafcadio Hearn in his stories of the West Indies indicated clearly why unceasing heat and debilitating moisture make mental and physical energy there almost impossible. It is equally true in our own country, although lying entirely in the temperate zone, that the climate of some states is an inspiration to action and is their chief social and economic asset, while that of other states is at times, especially in the summer months, an undeniable handicap to every form of endeavor. There is the vital matter likewise of the relation of the prevailing climate to agriculture. Farming is a much simpler and surer pur-

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suit in Ohio, for instance, than in the states of the great plains; and the genius and intelligence of the people have expressed themselves in the manner in which these latter commonwealths have adapted their farming methods to recurring visitations of devastating droughts and destroying hot winds.

Weather records are important. They are not difficult to analyze if you use a little common sense and do not attempt to get into the mathematics and technicalities which the professional meteorologist finds necessary in the study of the abstruse problems of forecasting. It was obvious a quarter of a century ago that it was neither ignorance nor lack of initiative that was holding back the state of Kansas and that the reason must be sought elsewhere. The state government agricultural reports disclosed a serious decline in crop yields of late years, especially in corn, although the acreage under cultivation was as large as ever. A study of the weather records collected at the State Agricultural College showed the coincidence of hot, dry summers with decreased crop yields. The conclusion as to the essential requirements for Kansas farming was obvious.

Quality of People

Equally important with the study of the natural conditions and resources of a region comes the study of the quality and record of the people who inhabit it.

As a rule the shorter the history of a state, the greater the chances of development, since then the commonwealth is really in its youth with all the courage of youth to do and to dare. Yet on the other hand, where the state has a proud story behind it, as in the case of North Carolina, there must be a searching analysis of such history, as in it may be found, treasured and pre-

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served, all those elements of the people which make for development and progress.

Next comes the study of what these people have done with their inheritance, the study of the activities, commercial and industrial, social and educational, in which they have been and are engaged. Mining and lumbering are activities that come early in a state's life as a rule; they represent the working up of primary natural resources. They have much to do usually with moulding the character of a people, even when they are supplanted later as principal activities. In California and Colorado mining was merely the prelude to the great drama of these two commonwealths.

Agriculture

Agriculture has been and always will be the most elementally vital pursuit of the human race, since it, principally, furnishes the primal necessities of food and clothing. Examination of the state's agricultural conditions and outlook should constitute one of the chief parts of such a survey as we are discussing. It is a contradictory and paradoxical fact that as a business agriculture has been largely governed by rule-of-thumb procedures and traditions of the past. Its most vital factors, soil fertilization, crop rotation, intensive cultivation, are as old, nearly, as the human race. Many of its practices were mere suspicions of certain scientific laws of cause and effect brought about by accident, or analytical observation, or the exercise of common sense, which coupled somewhat non-understandingly certain actions with always the same consequence.

The growth of agriculture in any state is not measured alone by the increase in crop yields nor by the multiplication of live stock. There are changes which go deeper

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because they affect the every-day life of the farmer and his family. To those who realize that the history of a people lies not only in the story of their public men and the acts of their legislature, but also in the homely recital of the daily lives of the obscure and unknown who make up the greater part of every nation it must seem apparent that in rural life progress is reflected in the advance made in education, sanitation, and generally improved ways of living as well as in any statistics on crops and live stock.

Other Characteristics

Water-power is one of the chief resources of any region and the extent of its application, whether for industrial purposes or for irrigation, is very often the measure of the intelligence, initiative, and ingenuity of the people.

Manufacturing, even beyond its commercial aspect, is frequently of supreme importance, as in North Carolina, in the vast social and economic changes which it causes. It introduces a host of perplexing problems in every phase of state life and these in turn bring development.

The extent and variety of education is the supreme test of the development and progress of the people of a state. Education creates and constantly develops the intelligence of a people and increases their earning power. Likewise it calls new wants into being and invokes larger spending among the many, and for things of higher merit. Moreover it is the vital element, or, chemically speaking, the active principle of all progress and all advancement. Ignorance and illiteracy are content with things as they are and seek no further, nor have any desire to better themselves and their conditions.

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Survey

For the survey to be trustworthy there must be an entire absence of any attempt to prove a theory. Facts must first be obtained with the theory following as the natural consequence of intelligent and unbiased study of the facts. Conclusions sound enough to form the basis of future action can come only from the union of common sense and careful reasoning, such as has found vivid illustration in the great series of detective stories by Edgar Allan Poe and Conan Doyle, for they represent that analogy of deductive and inductive reasoning familiar in every phase of human intelligence. Too often effort to interpret the character of a community has gone no further than superficial examination presenting loose generalizations about material resources, with flamboyant forecasts of the prosperity which inevitably awaited the people whose country possessed such sources of wealth. Meanwhile there remained, neglected and unrecognized, the real springs of action in any nation, the nature and character of the people and their mental and moral tendencies in indicating the social and economic paths along which their future must inevitably lie. The tropical countries are full of illustrations of nature's gifts and resources vainly bestowed with lavish hand upon peoples and races whose inherent characteristics merely spell decadence and decay instead of progress and advancement.

Literature

The study will naturally begin with books, especially those which tell of the history of a state and more particularly of its people. To give background and definitions the observer needs to consult such reports as he can find, either governmental or private, dealing with the

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topography, geology, and climate of the region, its natural resources, and their industrial and commercial development. One thing especially to be investigated is the matter of education, of how much money the state government and the local authorities are investing in schools of whatever sort as a preparation for the future, and what direction the education is taking.

The Department of Agriculture at Washington can furnish much desired information on agriculture in all its phases, and the full and complete story of the weather. The Geological Survey at Washington will supply whatever is needed in regard to mines. The State Agricultural College and State Agricultural Board will also tell of the agricultural resources of the state. The Secretary of State of each state will either furnish other desired information or indicate where to procure it.

Personal Observation

It must never be forgotten, however, that books alone will not carry you far, not even books of statistics. Statistics are sure to be misleading unless you know from personal study and observation the facts which produced them. That is why so many writers on economics, who know only statistics, are mere blind leaders of the blind. There is but one way to reach a true conclusion and that is by personal study and observation. Statistics, books of information, stories of what others have seen, all have their place provided they are supplemented by one's own experience, otherwise they are but broken reeds to lean upon and lead only to half-truths and misconceptions. There is much to be got from those who have acquired their knowledge by hard contact with actual facts in the workaday world. Such people are usually of the plain every-day variety, and often know

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only one or two elemental and vital things. But they have these solidly imbedded in their consciousness. It is always well to check up your own experiences and observations with those of people of this type whenever you are able to do so. It frequently saves you from being carried away by theories at the expense of common sense and facts.

I have met many such people in the ranks of farmers, working men of all types, trainmen, retail dealers in the smaller cities and towns, and always professional men and mechanics of all descriptions who live much in the open air. I was once "put wise" to the story of the Kansas oil fields, their development and history, by an oil "driller" whom I met casually in Hutchinson. Another time in a ride in a day coach from Wichita to Neodesha I learned the story of the zinc mines in southeastern Kansas from a flannel-shirted, unshaven, and unshorn mining engineer who shared a seat with me. There is not much real information to be had from those who have not had some rough-and-ready experiences, and who have not done some investigating on their own account.

Travel

The surest and only reliable way to get acquainted with the state and its people, is to travel over it. A railroad train will do if you look out of the window, observing and thinking about what you see, and talking to traveling men, trainmen, and other men who really know the country and can tell you actual things about it.

As you travel you learn to "size up" the inward and spiritual ways of the people by their outward and visible signs. You learn to determine the progressiveness of a town from the nature and appearance of streets, stores,

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schoolhouses, churches, and places of amusement. You can tell from the nature of the goods in the stores whether the citizens are up to date or whether they are content with the ways of their fathers. If these stores have records and victrolas, stylish clothes, tempting groceries of well-known brands, attractive cutlery, and builders' hardware, the latest soda fountains and book counters, you know that commercially speaking it is a "good town" in which to sell the latest up-to-date merchandise. You get the pace of the town, either slow or in the running, from such things as the absence or presence of well-paved streets and sidewalks, well-kept lawns, attractive homes, electric lighting plants, running water in the houses, and the character and appearance of schools and public libraries. Furthermore from these things of appearance you easily deduce the kind of commodities the people are likely to buy—whether oriental rugs or cheap carpets, whether high-grade edge tools or cheaper substitutes, whether beautiful "creations" in clothes or mere "hand-me-downs." For the things you have observed are the inevitable expression of the ways, thoughts, and aspirations of the people you seek to understand.

Similarly, in farming communities you observe whether farmers are provided with the capital necessary for the intelligent conduct of their business; whether there is sufficiency of farm implements and machinery, of barns and storehouses for crops, silos, and live stock. From the condition of the growing crops, and their diversification you can draw evidences as to the intelligence with which farming is pursued.

That is to say, successful study of the resources and possibilities of a state must be founded principally on the personal knowledge and observation of those making

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the reports. It requires much traveling over the region to be studied, with ceaseless observation and analysis of everything which greets the eye; figures, statistics, and written records in general being merely supplementary to direct observation. In a word, it must take into account not merely obvious and external facts but those inner spiritual characteristics which reveal themselves only after long and close acquaintance.

Representative States

Every one of the states has its own individuality. The process of its development, when closely studied, is rich in meaning. To cover all the states, however, would be impossible within avaiable limits of space and time. The basis of selection must be in some sense of a *representative character*. The states of one region, as they are usually subject to somewhat similar influence, to a certain degree parallel each other in character and experience. For convenience, however, we may select a few states in which the tendencies of the various sections of the country have manifested themselves strongly—which represent the high-lights of the country's recent development.

The states here selected are: Ohio, representing broadly a composite land, the older Middle West; Wisconsin, the northern Middle West; Arkansas, the Southwest and the central South; North Carolina, the more southern Atlantic states; Kansas, the western plains; Texas, the southern plains; Colorado, the mountains; and California, the Pacific Coast.

East Omitted

It will be noted at once that there is no treatment of the oldest sections of the country: New England; New York and New Jersey; Pennsylvania, with Delaware and

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Maryland; and Virginia. The reason is given as follows:

The studies of the present volume have to do with the development of the past quarter century. During that time the newer sections of the country in the West and South have been passing through large and significant changes which represent, in many instances, what might be termed the growth of the state to full stature, the completion of the state "pattern." Meanwhile in the older section, what is commonly called "the East," the changes have been of a different nature. There the state "pattern" was filled out a generation ago. In certain senses the original creative impulse has reached a pause in some of the eastern states. The stronger elements of the original population naturally have been attracted to newer states and have been replaced by a new population of immigrants of a different racial character.

The Next Wave of Progress

It is true of course that history is still in the making in this oldest section of our country with its new population. A second process of Americanization is under way, and a second "try" at industrial development. The processes of change, however, represent a later stage of development than in the rest of the country. They are, moreover, too complex and obscure and perhaps as yet not far enough along for clear interpretation at this time.

So far as the obscure processes of this second making of America may be interpreted, they may perhaps indicate that nature is applying the Napoleonic formula of "the tools to him who can use them"; that no section of our country is going to be allowed to lie waste, but that when a section falls behind presently a fresh wave of Americanizing energy from other quarters is to pour over it and waken it to life again.

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ARKANSAS

"The Arkansas Traveler"

A generation ago the state of Arkansas was a synonym for slowness and unprogressiveness among those unfamiliar with the commonwealth and its people. The inhabitants were popularly supposed, by the unknowing, to be divided into "Hill Billies" and "Swamp Angels" and to be without ambition for anything better than the ways of their forebears. The "Arkansas Traveler" anecdote was thought to typify the shiftlessness and easy-going content of the people of the state. The story of the "Arkansas Traveler" was in fact the source from which a vast number of the people in the United States drew their conceptions of the state and its inhabitants. There was the vivid mental picture of the good-natured male, too indifferent and too lazy either to repair or improve his unsightly cabin devoid alike of comforts and conveniences. There were the unattractive and uneducated women and children clad in sunbonnets and homespun clothes.

Ignorance of Potentialities

The sole background, in the popular imagination, to the above set-forth scene was the cypress swamps, draped with pendant funereal moss, and infested with mosquitoes and the ever-present malaria. There was scant knowledge of the fertile valleys; of the far-stretching belt of yellow pine, the future reliance of the country for its lumber; or of the picturesque forest-clad Ozark uplift with its crystal streams and untouched de-

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posits of mineral wealth. The ignorant, though widespread thought concerning Arkansas was that of a people unaware of their mental inertia and unprogressiveness, and whose local and state pride found expression merely in a boastful recital of advantages and resources which they failed either to appreciate or develop. Added to this was the prevalent impression that immigration was not desired and that foreign capital was far from welcome. The fantastic enactments of some of the legislatures only gave color to these exaggerated conceptions.

Natural Resources

At a time when such reports had much general credence one of the large distributing concerns of the United States was engaged in making a general survey of the country in regard to the future possibilities of its business, and Arkansas came within the ken of its observation. The story here given of the study of the state and the conclusions reached regarding it, of its subsequent development and the extent to which this development was in accord with the conclusions of the survey, are the record of an actual experience.

Arkansas consists practically of two diverse topographical sections, and a line drawn from northeast to southwest through Little Rock leaves the mountainous region to the west, and the plains to the east. Several things are immediately apparent as a result of these geographical differences. There is great variety of resources and of the possibilities of production.

There is much hardwood in the mountains, vast forests of yellow pine in the plains, and a great growth of cypress in the swamps. Even at the time this survey was undertaken the white pine forests of the northern

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states were fast becoming exhausted, and it was perfectly obvious that in the near future the lumber supplies must come from two sections: the far northwest and Pacific slope, and the southern states. There are in addition many minerals in these mountains: zinc, lead, coal, bauxite, oil, manganese, oil stones, and many of the clay products.

Backwardness

But transportation, the one thing needed to give value to these crude riches, was largely absent in the rough and hilly western part of the state. The mountains were not very high but they were rugged and rocky, and roads, whether highway or rail, were alike expensive to build and costly to maintain. Until economical means of transportation were found, all the hardwoods and minerals were of small value. It was then a saying in the lumber business that forests more than twenty miles from a railroad were too expensive to cut.

There was a still further deterrent to progress. Mountain people are primitive and elemental because they see but little of each other and less of the outer world. Their mental horizon is generally as circumscribed as their physical views, and they are the unconscious slaves of inheritance and tradition. Their advancement comes usually through an impulse from the outside which brings new thoughts and aspirations, and breaks down all the habits and ways of the past.

The opening up and development of the Ozark regions of Arkansas could come only when the world of capital had true visions of the potential riches hidden in those silent and picturesque hills and then set about making those visions realities of wealth and revenue.

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Fertility

The plains country was one of great fertility and many possibilities of agricultural development. Much of it was forest with most valuable standing timber. Much of it was very rich alluvial deposit, along the banks of the numerous rivers that traverse the state. There was deadly peril on the plains in those days, the danger and bane of enfeebling and energy-destroying disease, for the inhabitants of these rich soils were ceaselessly engaged in a losing fight against malaria and yellow fever. Yet the state could and did raise all the products that grew both to the north and south of its boundary lines. It knew but little of the small grains; wheat, oats, and the like; something more, but not enough, of corn. It grew some fruits, watermelons, peaches, pears, strawberries, and apples, of a nature and quality which hinted at the great things which the future held for it in fruit production. Furthermore it did some stunts in truck gardening although markets for such products, and the means of reaching them, were then few and not encouraging. It had sufficient and fairly regular and dependable rainfall, so that it was measurably immune to those prolonged and devastating droughts which were the bane and stumbling-block of agriculture to the west and southwest. Its main hope and dependence at the time of the survey was cotton, nor did it realize that in this it leaned upon a broken reed.

Cotton Obsession

Arkansas was not much of a cattle or dairy country, and for two very good reasons. It was so obsessed with raising cotton that it had neither time nor inclination to raise feed for its live stock; and to import this feed to any extent from the great grain belt to the north was too

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expensive. So it was content to import packing-house products from these same northern states, and its razor-back hogs were of like fame with the little sketch of the "Arkansas Traveler." Then there was the Texas cattle tick, whose prevalence everywhere in the southern states made cattle raising impossible on any large scale.

The plains had more and better means of communication than the mountains, especially in railroads. But the railroads were few in proportion to the extent of the country they traversed, and moreover they were not popular among so elemental and direct a people as those of Arkansas. In those days railroad building and railroad management were often an adventure and speculation rather than a business enterprise. The executives were sometimes true pioneers and world builders, but not infrequently they were mere predatory highwaymen who concealed their real nature and purpose under the specious title of high financiers.

The Anglo-Saxon

This recital of resources and of the possibilities of development is not in itself convincing. We have all seen it too often in the prospectus of a land company or the confidential circular of a local commercial club in the semiarid regions of the Southwest. The situation in Arkansas, however, was peculiar. The state obviously had all the resources needed to make it rich and prosperous, if only they were developed. Whether they would be developed was the question.

To answer that question the observer had to get beyond appearances and reach a comprehension of that ultimate factor of success, the spirit of the people. The people of Arkansas were of almost undiluted Anglo-Saxon native stock, the foreign infusion, both of birth

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and parentage, being only four and a half per cent. Whatever might be the physical and mental inertia of the hillmen from solitude and lack of communication with the outside world, and of the plainsmen from malaria and the burden of tradition, they had preserved unsullied, throughout generations, all the native courage, resolution, and determination which made their forebears conquerors of disease, wild beasts, and savages in the days gone by. The real problem was to awaken their consciousness to the neglected possibilities of development and progress in their state.

The Negro

It is true that they had one irremovable handicap—nothing less than a large negro population, 28 per cent of the total. This negro population was illiterate and ignorant, and as a result criminal to a considerable degree beyond its ratio to the whole population; and moreover the black man was peculiarly content with things as they were, after a childlike and happy-go-lucky fashion. He was averse to change, especially to such change as required hard work and hard thinking, with self-denial thrown in for good measure. In general the negroes were good field hands, but wedded to the agricultural ways of the past. They knew how to raise cotton, but were not keen about trying new ventures with other crops. When diversification was attempted they were among the principal hindrances to the new ways and methods of agriculture. Their illiteracy was largely their misfortune, the result of centuries of slavery. There was at the time of the survey, moreover, no general perception throughout the country of the vital necessity, for the benefit not only of the black but also of the white race, of the general education of the negroes.

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Change from Within

The result of the survey, however, indicated clearly to the observers that it was merely a question of time when the great and undeveloped resources of the state must come into play and make it pre-eminently one of the best hunting grounds for business in all the South. The question was when the great change would come and how fast it would progress.

One chief hindrance was the backwardness of education, not merely among the negroes but among the white people as well. It was obvious that while the impulse and suggestion as to a great development of the state might come from the outside, the abiding change must be in the spirit of the people themselves and their realization of the neglected opportunities which encompassed them on every side. For the Kingdom of Heaven is within. Equally was it obvious that the awakening must be largely along economic lines, leading primarily to the betterment of the material status of the people and the spread among them of far better living conditions.

King Cotton

While the speculation went on, fate was preparing to answer the question in an entirely unexpected and far-reaching fashion. What happened was the startling exposition that the social, economic, and political life of the South was bound up in the conquest of three insignificant but malignant insects, the cotton-boll weevil, the Texas cattle tick, and the malaria-bearing mosquito.

Almost from the beginning of the agricultural history of the South the cultivation of cotton was the principal industry. Cotton was the most economical and the most practicable of all fabrics for clothing, and the demand, especially after the invention of the cotton gin,

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was almost unlimited. And the southern states had all the requisites for the production of this great staple: suitable soil and climate, a ready and accessible market, and an abundance of cheap labor in the shape of slaves, for whose presence in this country the production of cotton was largely responsible. So in time cotton became king, and the South became largely a one-crop country.

One-crop System

But a one-crop country is a psychological phenomenon rather than a material necessity. To the extent that one-crop practices and ideas prevail in any country, to that extent is progress hampered and delayed. It is not, as events prove, that the single crop is the best agricultural system, but rather that this idea is unthinkingly accepted as a dictum because it seems substantiated by the experience of the past. Men are largely as their pursuits and environment. The tendency of the people of all one-crop countries is to that single-track mind which is the accompaniment and result of one-crop methods. There is scant receptiveness to new and passing impressions and an overweening regard and reverence for the ways and customs of inheritance and tradition. In business ways this means that buying and selling is much along the lines of the past; that new goods and new inventions do not meet with any ready reception; that economical labor-saving methods and machinery find scant use among those to whom the ways of their forefathers are good enough. Accordingly enterprise and development lag far behind, and the ordinary wants are few and mostly for the things of replacement and repair. Contrariwise, the people of countries and states of diversified crops and industries are usually as many-sided as their employments.

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The Boll Weevil

In 1892 the cotton-boll weevil crossed the Rio Grande from Mexico into extreme southwestern Texas near Brownsville. Thenceforth the story of economic, social, and political life in the South was that of constant change and uprooting of the past, ending finally in steady progress and advance.

The destructive boll weevil immediately began its steady and relentless march northward and eastward, a march which was to end only when the extreme limits of the cotton belt in this country should have been reached. Wherever it appeared its ravages made cotton growing, for a time at least, either impossible or unremunerative, since no way was found either to check these ravages with any effectiveness or to stay its march. All methods of insect destruction were without avail and it multiplied with amazing rapidity. It defied all human efforts as effectually as did the insect plagues which Jehovah sent upon Pharaoh and the Egyptians.

The immediate effect of the invasion of the boll weevil in any section was a complete and immediate paralysis of all agricultural and commercial life. It seemed as if the one vital industry had been struck dead without any hope of resuscitation.

Economic Slavery

The credit system in Arkansas, as elsewhere in the South, was of that vicious type which often prevails in one-crop countries. Advances for needed supplies were made to the farmer or planter by the general supply stores, and the coming crop, long before it was planted, was mortgaged as collateral for these supplies. The enhanced prices paid by the unfortunate agriculturist were consequently in accordance with the long credits

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and the risks run by the lender. It was in effect a system of economic slavery, burdensome to be borne, and yet from which escape seemed as impossible as from the grave.

Under such one-crop conditions prosperity and depression succeeded each other in sharply accentuated cycles according as crop yields were abundant and prices remunerative, or scanty and unremunerative. Upon the appearance of the boll weevil the labored fabric of long-time credit fell into sudden and general ruin. It was obviously not even a gamble to advance money upon a crop that was quite sure to be disastrously short. Out of this bitter necessity came the real beginning of diversification of crops. In the language of the day the planter and the farmer, especially the tenant farmer, were "up against it," for in the homely phrase of the South it was a case of "root, hog, or die."

Diversification

When the crisis came, however, there ensued that readjustment to the situation which usually results when necessity and misfortune force the hand of a people or a nation of inherent strength. The same enduring racial fiber which carried the Southern people through the Civil War and the consequent reconstruction period came to their aid in this emergency, and all their fortitude and resourcefulness centered upon the solution of the vital and portentous problem which confronted them. If cotton could no longer be grown successfully then something else must take its place. Thought and endeavor turned to the production of grains, forage crops, tubers, fruits, and garden truck, all those products that had been so long and systematically neglected. That was the beginning of diversification of crops.

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Crop Risks

Diversified farming, fortified and advanced by the effects of the European War, has unquestionably come to stay. There will be decreases and increases in cotton acreage according as the price of this great staple is low or high, but it seems assured that crop diversification in the South has become an established fact. The Southerner has realized that only in this way can cotton be produced to the best advantage, and that it is better and cheaper to raise all the food needed for man and beast, planting somewhat less cotton, than to buy all these supplies at far higher prices than they can be produced at home and take the long chance of producing a big crop of cotton against unfavorable conditions. Any statement of the situation resolves itself into the policy that insures a generally remunerative price for cotton, not for merely a single season but for many seasons, and this must be an intelligent plan rather than, as in the past, a mere gamble with fate in the shape of nature.

Smaller Yield

In 1906 the boll weevil appeared in the southwestern portion of Arkansas and by 1916 had covered all the cotton-growing parts of the state except the extreme northern border. Yet cotton is still the principal agricultural product of Arkansas, and its yield under favorable weather conditions is as large as in the past, for the people have learned intelligent methods of cultivation which make it possible to raise large yields of cotton in spite of the boll weevil. But the relative importance of cotton production in the state has materially declined because more of other food products for man and beast have become a necessary part of the farmers' system.

More grains of all kinds are grown, also forage feeds

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for the increasing number of cattle. Alfalfa, once a total stranger, is known in practically all parts of the state. Arkansas is likewise a large raiser and exporter to northern and western markets of fruit, apples, peaches, canteloupes, watermelons, strawberries, and of vegetables. Rice growing on the upland prairies in the central-eastern section of the state is an important industry.

Food Production

The Great War finished what was left of the one-crop idea and of cotton as king, as the export demand was largely decreased. There was no market in 1914 and part of 1915 for much of the cotton grown in Arkansas. The price fell to five cents per pound, less than the cost of production, and there was only a limited demand for the fleecy staple even at that ruinous figure. As the cotton planters had nothing to sell, they were practically without funds wherewith to obtain those supplies of food which in the past they had failed to raise and had consequently had to purchase from the great grain and live stock states of the West and Middle West. In very desperation they were forced to grow their own foodstuff. They were aided and seconded by some enterprising bankers and merchants of Little Rock who started a campaign with the war cry, "Arkansas should feed herself." There was no reason, they showed, why Arkansas should not easily produce all the food needed for her people and her live stock and thus save those many millions of dollars which annually in the past were sent out of the state for food products.

The Cattle Tick

This campaign was aided in its turn by the fight which the federal Department of Agriculture had been

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waging since 1906 to free the southern states from another noxious insect, the Texas cattle tick. The presence in the South of the cattle tick in countless millions had for many generations made the raising of live stock impossible on any extended scale. It destroyed both the vitality and life of cattle by its ceaseless blood-sucking and by a fever which its bite conveyed from one infected animal to another. It was found in every pasture and upon every hillside and practically no cattle escaped the infection. It bred in countless numbers and for many long years there was no effort on the part of the people to free themselves from its depredations. And yet, as the scientists found, where the problem was studied systematically the pest was easily destroyed by driving the tick-infested animals through a vat of arsenic solution.

By 1914 one-half of the state of Arkansas was rid of the tick and it began then, in common with the rest of the South, to realize its destiny as a part of the great cattle-raising section of the country. It had abundant natural pasturage and forage. It was free alike from devastating droughts and destructive blizzards. With the consequent increase in cattle came naturally a corresponding increase in the number of hogs of high breed and productiveness, so that the razor-back is now only a memory and is extinct, even as a fire among thorns.

Malaria

There remained only one more ban to be lifted, that of malaria and yellow fever. Wherever malaria existed, enervating sickness was common, and immigrants from abroad and from the other states refused to come. There was likewise the apprehension of the recurring outbreaks of yellow fever, which it seemed impossible to prevent. Yellow fever not only took a heavy toll of

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human life, but paralyzed all business and industrial life wherever it prevailed. Moreover, because of the ever-present fear of its sure though uncertain recurrence, the cities and localities once afflicted were regarded as places where investment and enterprise were manifestly gambles with fate. During succeeding visitations of this terrible scourge every section where it prevailed was literally out of all productive and distributing business during the long summer and early spring months in which the dread disease prevailed. The infested districts were quarantined against all the world. At times there were shotgun quarantines where to cross the dead-line meant instant death.

Banishment of Disease

In 1901 it became definitely known, as a result of scientific investigation, that both malaria and yellow fever could be conveyed only by the bite of certain species of mosquitoes. That the truth might be sure beyond contradiction it needed that experiment should confirm the results of study. In the hospital corps of the United States Army in Cuba, American soldiers offered their lives that humanity might live. The test was complete and conclusive even though some of the heroic volunteers died that the truth might be established. This is one of the instances where a scientific discovery has changed the entire current of business life. Immediately the ban of the disease was lifted from the South, for all that was necessary was to avoid being bitten by these mosquitoes through protecting dwellings with suitable screens. Likewise, there was an additional and compelling incentive to the draining of swamp-lands, the mosquitoes' haunts and breeding places. Not only were the foundations of malaria thus destroyed, but there immediately became avail-

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able for cultivation the richest alluvial lands in this country. So there ensued and still goes on the draining of those fever-breeding marshes of which the eastern part of Arkansas has its share.

Agriculture Stimulated

And thus the beginning of the development foreseen by the survey has come to pass. Diversification of crops is now a fixed part of the agricultural life of the state, because of the necessity bred by the boll weevil, and the opportunity afforded by the freeing of the greater part of the state from the cattle tick. The resulting prosperity has brought not only greater material welfare but its inevitable accompaniment, a broadening of the mental horizon of the people and their increasing interest in all phases of education and enlightenment. The old-time provincialism is fast becoming a memory.

Agriculture, the basis of economic life, has a new vision. Arkansas today not only feeds herself but exports great quantities of fruits and garden truck to northern and western markets. Above all, her people are seeking to make life on the farm not only profitable but worth while and to supply the farms with those essentials of sanitation, intelligent system, and the comforts and conveniences that are characteristic of modern life. One striking feature of rural existence is the number of "county agents," trained and experienced men and women, maintained by the federal and state governments, whose sole duty is to serve the farmer and his family in the ways of teaching and direction.

New Spirit

Most momentous of all is the new-born spirit of the people, as evidenced in a recent liberal constitution and

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the consequent fast dying out of that feeling in the outside world which made the stranger to the state regard it as undesirable either as a residence or a place in which to do business. There are increasing developments in mining, and in the lumber output Arkansas now ranks fifth among the states.

For those familiar with the situation from close personal study it was not necessary to await the full development of the results of the invasion of the cotton-boll weevil, the destruction of the cattle tick, and the draining of the swamp-lands to realize what would be their effect, as a creative impulse, upon the people of Arkansas and the consequent development of the great resources of the state. To those who had thoroughly analyzed the situation and who had the vision to perceive the inevitable trend of events, the certain conclusions were self-evident even at that early stage of the game.

Outlook Broadened

The discovery, for instance, that the germ-bearing mosquito was the only method of malarial and yellow fever infection immediately opened up the possibilities both of the prevention of these diseases by screen protection against the deadly insect, and likewise of this insect's ultimate destruction by draining the swamp-lands which were its breeding places. Both methods were bound not only to insure better health and greater vigor for the inhabitants of the state, but to add enormously to their economic productiveness because malaria is probably one of the most debilitating diseases known.

Furthermore, banishing the fear and likelihood of malaria and yellow fever made possible the immigration of those outside the state who had previously shunned making their home in or even visiting a region where these

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dread diseases prevailed. Immigration from other states was bound to bring with it new ideas, new methods, and that country-wide point of view which tended inevitably to dissipate the provincialism of those to whom outside faces were largely a novelty. Finally, the draining of the swamp-lands presented great possibilities of increased agricultural production and consequently increased wealth to the state, because centuries of alluvial deposits had made these lands among the richest in the world.

Spirit of Independence

It is an interesting fact that the taking up of these new lands renews in those who farm them that pioneer spirit of independent thought and action and of steady industry which gave this country her place among the nations, and which is still the elemental spirit of American democracy. That this result would follow in Arkansas was not difficult to forecast by those who were familiar with the entire country and who knew both from observation and study what had been the results of similar happenings in other states—for instance, in connection with the draining of swamp-lands in portions of Missouri and Illinois, and in northern Ohio along the shores of Lake Erie.

Live Stock

Equally elemental, as Sherlock Holmes would say, was the sure effect upon farming when the Texas cattle tick was exterminated and the general raising of live stock made possible. The South was sure of becoming a great cattle-raising section because it had all the ways and means thereto. There must naturally ensue then in due course of time, hastened by the constant teaching

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of the federal Department of Agriculture and the State University, a realization by the farming community that it was cheaper to raise its own food in the shape of live stock than to buy it from the West and the North in the form of packing-house products. With the advent of live stock as an integral part of farm life, there must necessarily ensue increased fertility of the soil and more intelligent methods of farming. Another important industry, that of the dairy cow and her products, was bound ultimately to accompany live stock raising, and to add greatly to the prosperity of the farmer.

Taught by Adversity

Now all of these things were easily to be prophesied by the investigator in the beginning, provided always that he was a student of men and conditions as well as of books, and had some measure of experience in the lines he essayed to investigate. On the surface, it may seem, the ultimate result of the boll weevil invasion was not so simple, seeing that it apparently threatened the entire destruction of the principal industry of the South, that of cotton raising, and that there seemed no remedy for the situation. Yet in the last analysis this was in no manner different from the problems of the malarial mosquito and the Texas cattle tick, save that seemingly the outside influence was essentially destructive and not constructive.

In sober truth there was need of destruction of the old before the new and better ways could be seen for their true worth. The mistaken fallacy of one-crop cotton farming in the South had long been recognized and set forth by the intelligent and advanced agricultural teachers of the day. But theirs were voices crying in the wilderness. They went up against the imbedded

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practices of two centuries and made no impression. There was but one way of teaching, and nature furnished it as she always does, in the shape of trouble and apparently dire misfortune. Men, and peoples, rarely learn permanent and enduring lessons in any other school. It was perfectly obvious as soon as it was seen that the march of the boll weevil could not be stopped, that the cotton growers must learn their lessons perforce, whether they would or no. It was also evident from study and experience that where diversified farming once prevailed there would never be any reversion to the original type of one-crop methods. The simple and substantial reason was that the diversificating always proved to be the more profitable method.

Money Crop

It would have been an entirely different story if the advent of the boll weevil had made cotton raising entirely or nearly impossible. For the South needed one great crop as does every country, in order that the farmer may have something to sell besides raising what he needs for his own sustenance, and there was never any question but that cotton is logically this money crop for the South. But the observer who knew the record of history had a right to be confident. No predatory insect enemy of agriculture, no matter how great its numbers or wide-spread its depredations, has permanently affected the output of any great agricultural product in any extended area. Sooner or later either man or nature has found a remedy. The experience of Arkansas, and now of the South, has given this verdict fresh proof. While it is true that the ravages of the boll weevil continue, it is equally true that great yields of cotton are being raised in spite of these losses and the

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fear of the weevil in the southern states, as a permanent deterrent to cotton production on a large scale no longer exists.

Building Up Business

What remained to be done, after that survey of nearly a generation ago was completed, was merely to lay deep the foundations of future business upon the assured basis of intelligent preparation and study. The nature of such action depended largely upon the character of the business, but the methods were much alike in all lines of commercial life. They meant primarily the establishment of close business relations with all sections of the state where progress and advancement seemed most likely to take permanent root. They meant likewise closer canvassing for business in such sections. They meant careful and intelligent merchandising to supply those goods for which there would be an increasing demand because of changed conditions, and equally close watch on those articles for which there would be less call because of these same changed conditions. They meant an earnest effort to teach better credit and merchandising methods to those local dealers who were slowly emerging from the antiquated ways of the past. They meant an intelligent interest in the progress of the state and such participation in this movement as might be practicable. And they likewise meant the continuance of the same patient study of conditions and development as was given to the original survey, so that salesmanship and merchandising might be in constant touch with ever-changing conditions.

What was early apparent to the makers of the survey is now apparent to all; that the Anglo-Saxon stock of the people had preserved its native qualities through-

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out all the generations of trial and stress and needed only the compelling impulse of opportunity and creative suggestion to come into its own. And so Wisdom has been justified of her children.

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KANSAS

Advertising Promoter

The study of business possibilities in Kansas some twenty-five years ago showed that the state's development was distinguished by the absence of many of those factors which mark the likelihood of future progress in most countries. The usual scheme of advertisement which any city or locality or state employs, is to tell of the innumerable resources, actual and potential, which it possesses and to dilate upon the great prosperity which must ensue when these resources are fully developed. If at times the promoters of such advertising are hard put to paint a glowing and attractive picture and still confine themselves within the bounds of truth, in such cases they tell of beautiful scenery, choice society, and pure water, after the fashion of Sir Andrew Aguecheek in Shakespeare's comedy who could muster only one commendation of a certain locality, "Marry, good air."

A Rolling Prairie

Those who a quarter of a century ago might have made a study of the future of Kansas from the conventional point of view, would have misconceived grievously the real situation and its likelihoods and the reasons for the present great progress and advancement of the Sunflower State. To the casual observer Kansas is not a picturesque state, nor one of highly attractive scenery. It is not a land of babbling brooks or shady dells, for in common with most of the great plains states it is rather deficient in water in the form of lakes and rivers com-

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pared with the states to the east and north. It has but few elevations and hills, and no mountains whatever, being in the main a vast rolling prairie rising gradually from the eastern border to the Colorado line.

Mines

Kansas has large deposits of coal in the east and southeast and there is a suspicion that these deposits underlie the entire state. In the southeast there are great mines of lead and zinc, and at present a large production of coal-oil and natural gas. But the development of these underground resources has been largely within comparatively recent times and was not greatly in evidence when our story begins. It has very large deposits likewise of building stones, limestone and sandstone, mostly in the eastern portion.

Few Forests

As you travel over the state you note that there are practically no forests of any extent. Though you see a good many trees, probably they were all planted since the white men settled the country. You readily draw the conclusion that it is not naturally a state with any great lumber industry, and that much of the lumber used must come from other states. Also you readily draw the further conclusion that there will not be much demand for certain kinds of articles, such as axes and cross-cut saws, which are associated with the felling of trees. You see some fruit trees, mostly apple and peach, in the southeastern and eastern portion of the state, but you see clearly that the commercial fruit industry is not a large one.

Manufacturing, twenty-five years ago, was hardly to be found in Kansas and even today is of minor importance.

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Weather Extremes

Agriculture, or farming, and its accompaniment, live-stock raising, were then and are now essentially the most important industries of the people. Consequently the climate was, and continues to be, the keynote of the situation. Nor is it a climate of that regular well-ordered nature largely prevalent in the states east of the Mississippi River. The Kansas climate, in fact, leads to a negation of those sentiments which we of the temperate zone are apt to entertain as to the beneficent attitude of nature towards man. They have a different conception and a different attitude in the tropics, where bitter experience has taught them of the sinister and unrelenting hostility to man of animal and vegetable life, and of the weather against whose deadly influence he must forever be taking precautions lest he perish. The last view is very familiar in Kansas. Long ago the inhabitants of the state were disillusioned as to an ever-beneficent Nature. They saw Nature in her true garb, sometimes kindly, sometimes cruel, but in all her ever-varying moods utterly indifferent to man and his works. For the climate of Kansas is by turns a blessing and a calamity. There are years when the clouds drop fatness, and other years when in the words of Elijah, "the sky is as brass and the earth as iron underneath."

Moreover the topography of the state, devoid of hills and mountains and largely of forests, offers little resistance to those ceaseless winds following in the track of both the southwestern and northwestern barometric "lows" which move in regular procession across the state. These constantly prevailing winds add much to the natural dryness of the state, remote as it is from any body of water. But the land has abundant sunshine, thus adding much to its agricultural possibilities.

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Rainfall

The real problem is the uncertainty of the rainfall. In the eastern portion the average precipitation is about forty inches, decreasing progressively westward until at the Colorado line, approximately a distance of four hundred miles, it is less than twenty inches. The range of variation is from 25 to 50 inches in the eastern section and from 12 to 29 inches in the western. The summers of small precipitation are always those of extremely high temperature, 116 degrees having been recorded, often accompanied by hot winds which wither and destroy all living vegetation as with the breath of a furnace. The wet years and the dry years have a fashion, like most things in nature, of flocking together in two or three successive seasons. It is a meteorological phenomenon as old as history and was typified in Pharaoh's dream of the seven fat kine, or seven years of good crops, followed by the seven lean kine or seven years of drought and consequent disaster.

During the wet years the farmers of Kansas used to raise great crops. But when the turn came and the rains almost ceased the farmers, especially in the western section of the state, usually went broke and had to be "carried" over the hard times by the storekeepers and local bankers.

Disillusionment

For a time during the years of precipitation there prevailed the current delusion, not yet wholly overcome, that the climate was changing, that rainfall was increasing, that planting trees and cultivating the soil produced greater precipitation. Meanwhile pitiless Nature, who is no respecter of men or their theories, had up her sleeve a bitter disillusionment for these dwellers in a

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fool's paradise, in the shape of an irregular yet relentless recurrence of those years of drought and misfortune which were the source of most of the troubles of the people of the state. They saw the yield of wheat drop from 74,000,000 bushels in 1892 to 16,000,000 bushels in 1895; corn from 138,000,000 bushels in 1892 to 18,000,000 bushels in 1894; and the value of all live stock decline from $109,000,000 in 1892 to $73,000,000 in 1896. Moreover, in their experience these same farmers had seen the production of wheat cut in half, on the same acreage, in a dry year as compared with a wet year, and the yield of corn, on practically the same acreage, decline from 247,000,000 bushels in one year to 75,000,000 in another year.

"Sixteen to One"

Finally many farmers, especially in western Kansas, gave up the unequal contest and abandoning their farms trekked eastward. So in a number of counties population declined and business suffered accordingly. Finally, two bad crop years culminated in the disastrous drought of 1894. Then followed the campaign for free silver, when Kansas for the time being cast all her former political idols to the dogs and went hell-bent for the sixteen to one ratio. That was the winter of her discontent, and the depth of her despair. But the "sun of York" was soon to rise, for just then came the turning point and the beginning of the end of troublous times for Kansas.

"More Corn and Less Hell"

At this time the fortune and the reputation of the state were alike at their lowest ebb. Kansas was a byword for mortgaged farms, discontented and distressed

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farmers, and wild and impossible theories of government and finance. "What's the matter with Kansas?" was a current gibe of the times. Those were the days in which the farmers of Kansas were advised by their wives to "raise more corn and less hell." The people of the state were regarded by many unknowing people throughout the country as being merely sublimated cranks.

Investment and capital fought shy of the state because of its free silver proclivities and the retaliatory laws passed against outside investors and the railroads within the state. The railroad laws had indeed a good deal of justification; as with most western states at that time, Kansas suffered from the predatory exploitation of certain railroad financiers to whom railroad management was merely a great game at the expense of the stockholders and the people. But the railroad laws did not help the state's reputation with the business world. The bitterness grew on both sides to an extent that took years to assuage and remove. Yet at this critical and tumultous period, when misunderstanding and misconception on both sides was at its height, it needed but a modicum of common sense and the study of experience to realize that the state offered in the future one of the surest and most profitable fields for business enterprise and expansion. The key to the problem lay entirely in the study of the people and the trend of their mentality.

Idealism

Unless you allowed preconceived ideas and prejudices to blind your mental vision it was perfectly obvious that the people of Kansas were desperately in earnest in whatever they undertook, and that idealism was their guiding

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star. In the past, in the slavery question for instance, time had given proof that their idealism was something more than mere fanaticism. Their low percentage of illiteracy, the statistics of education and the money spent for it, gave evidence of a people to whom education and intelligence were matters of vital import. Their apparent adherence to certain theories held to be anarchistic and revolutionary by the staid and conservative East was merely a case of perverted democracy and idealism. The cult of free silver was eagerly embraced by the people of Kansas as well as by those of many other western states, not, as was often ignorantly stated, because the farming community wished to pay their debts in fifty cents on the dollar currency, but rather because the theory appealed to them as a protest against "plutocracy and the rule of the money changers." In all times and in all countries the lure of fiat money has appealed to the many from its semblance of democratic and popular characteristics. It was not simply, nor even primarily, a financial problem to the people of Kansas but an apparently justifiable means of escape from the seemingly unbearable burden of low prices to the producer; just as on the other hand our greatest problem today is the high cost of living to the consumer, bred by the unreasonable and excessive cost of all commodities.

Conservatism

Kansas was then as now a commonwealth of farmers, and anarchy and social revolution never get very far with a farmer. He is a curious contradiction of radicalism as regards the social and economic problems which adversely affect his welfare, and ultra conservatism on the score of landed property which is his staff of life. Over and over again there have been associations of

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farmers who have startled the reactionary and conservative elements of the nations by the theories they advocated. But nothing harmful ever resulted, for these movements came to an end when the midsummer madness passed and the natural conservatism and good sense of the dweller on the soil asserted itself. For possession of property, especially farming property, from which one makes a living is the one sure specific which renders the owner immune to anarchy and revolution. The disintegrating elements of modern civilization are bred in the slums and tenements of great cities and industrial centers, and not on the countryside.

Schools

Not only was the average Kansan a farmer but he was likewise an educated man. Education has always been a name to conjure with in the Sunflower State. It is a commonwealth of readers. The actual attendance at schools has always been very high in proportion to the population. The percentage of illiteracy is the third lowest among the forty-eight states, despite the large influx at one time of a great number of negroes from the South. The number of students at colleges, universities, and other higher institutions of learning, is larger per capita of population than in any other state in the Union.

Moreover Kansas was, and is, a country of idealism. In Kansas there abide intelligence, education, and idealism. And the greatest of these is idealism, for without ideals no state or country can ever be sure of a civilization that does not lapse into degeneracy and decay.

The first settlers in Kansas were thoughtful, active-minded men and women. They came to a land that happily had neither history nor precedent and were not bur-

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dened, therefore, with traditions which are beautiful and picturesque in literature and art but too often are millstones about the neck of social and economic progress. Their land, besides, was one whose topography offered no obstacles to road building and in which communication was everywhere easy. Local prejudices and provincialism could not thrive under conditions which brought constant and free intermingling of the inhabitants.

There is something, moreover, in the unbroken stretch of the horizon and the endless sweep of the winds from the far-distant Rockies that typifies the breadth and freedom of thought that characterizes the people of the state. They have always cherished ideals, from the remote days when they fought slavery so bitterly. They were among the earliest to adopt woman's suffrage and prohibition. And for all these things they were regarded as cranks and fanatics. But they lived to see prohibition become the law of the land, and woman's suffrage adopted as the creed of both political parties. They have even witnessed the general acquiescence of the people in some of the theories of the "Middle-of-the-Road Populists" of twenty-five years ago.

Land of Common Sense

In the days of their desperate distress they clung with deathless grip to those ideals whose realization has finally led them through the desert and into the country where they would be. It needed no prophetic seer to realize that a people so constituted must ultimately "find themselves" by the use of that common sense and that craving for education with which they were so largely endowed. For Kansas is peculiarly and characteristically a land of common sense and practicality, neither of which qualities preclude the possession of plentiful imagination.

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The only problem, then, was as to whether the Kansas farmer would learn the lesson of adapting his ways in agriculture to a climate which really did not change, only varied somewhat within certain observed limits, or whether he would keep on going up against fate and keep on going broke by blindly clinging to methods of cultivation and a selection of plants to be cultivated which were all right in a moist eastern climate and all wrong on the dry Kansas plains. That way only failure lay as the grim past had shown only too clearly.

Farming Methods

But the student of conditions even at that day could see that a population constituted like that of Kansas would never rest till a way out was found. There were, in fact, four ways all more or less akin and they were all found and followed in the slow process of time. The driving force came from the intelligence, the education, and the resolution of the farmer himself. He was aided and guided by systematic experiments, followed up by the plain and persistent teaching of the federal Department of Agriculture and the State Agricultural College at Manhattan. These "ways out" were:

Use of dry-farming methods
Cultivation of drought-resisting plants
Employment of irrigation where possible
Building of silos

By these means Kansas agriculture was adapted to the ways of the climate.

Dry-farming is as old as agriculture and was her handmaiden in the cradle of the race, the semiarid Far East, in the dim historic past. It is merely applied common sense and science, which seek by certain methods of

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constant cultivation to prevent the evaporation of moisture in the soil and thus conserve it for the use of the plants.

Drought-Resisting Plants

The uttermost parts of the earth were ransacked for drought-resisting plants, the non-saccharine sorghum grains, kafir, milo and feterita, sudan grass and alfalfa. They were brought from the arid steppes of Mongolia, from the burning plains of the Sudan, from the ages-old desert of Egypt, from South Africa, where in the struggle for existence through countless ages they had survived as the fittest of plants to live and flourish in a land where water is scarce and more precious than rubies.

The years that have followed have witnessed the steady increase in production of these hardy plants, and the consequent growth in value of live stock and dairy products now that food for man and beast is assured in plentiful supply despite hot winds, prolonged droughts, and the fierce heats of summer. Indian corn is no longer the only grain for live stock feed, since its yield is too uncertain in dry seasons and the drought-resisting plants supply its lack in the days of distress when rainfall is not.

Moreover the farmers of Kansas learned the lesson that the value of rainfall depends not so much upon its amount as upon its distribution. Fortunately, in Kansas from 71 to 78 per cent of the total annual precipitation is in the crop-growing months, from April to September. So the acreage of winter wheat has been much expanded in the past score of years, because wheat matures and is harvested before the months of July and August when heat and drought most prevail.

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Silos

Silos are the savings banks and reservoirs of feed for live stock, to furnish them green and nutritious food through the winter and in the dry days when pastures are burned. Growing crops threatened with drought can be cut and safely stowed away in silos thus largely solving the problem of feed in the years of poor crops. Silos fulfil, indeed, in overflowing measure the second part of the definition which the little Sunday School girl who had mixed her catechism gave of a lie, "An abomination in the sight of the Lord, but an ever-present help in time of trouble."

Charts and diagrams tell some of the story, but even more striking evidence comes often at first hand. In one of my trips through Kansas at the time the survey already referred to was in hand, I noticed an increasing number of poultry, mostly chickens of fancy breed, where the "dunghill fowl" had once reigned. I saw small flocks of sheep upon farms. There were more silos than before. There was more live stock, also there was much alfalfa and a species of corn known as kafir corn, new at that time to me, which I was told was more drought-resisting than Indian maize and a sure forage crop often when Indian corn withered away because of the fervent heat.

Passing through Wichita I found a great fair in progress and a great display of kafir corn. There the experts from the Agricultural College were telling the story of kafir, why it was drought-resisting and why it should be cultivated by the farmers of Kansas. That trip added definitely to the proof that agriculture in Kansas was winning its long fight against its inevitable portion in life of recurring seasons of hot winds and fierce, enduring droughts.

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Mental Receptiveness

In traveling through the state you note a certain breadth of mental horizon and a receptiveness to new impressions among those you meet. You note it in the newspapers, the talk of the people, and the nature and up-to-dateness of the goods the stores have to sell. You see it likewise in the selection of the books in the circulating and public libraries. You note in the way in which the people talk, dress, live, and take care of their homes, a good deal of elemental simplicity and freedom from display or pretence, which argues a certain solidity of character and steadiness of purpose. Such a mental attitude is apt to find expression, as regards business, in a demand for things of merit and worth rather than of display and show.

The Automobile

But there is no lack of progressiveness among these people, no lack of alertness in taking up new ideas and devices. Kansas stands first among the states in the percentage of mileage of public roads to its area although they are mostly natural dirt roads rather than hard-surfaced turnpikes. The ease of communication signifies much traveling about, and the consequent freedom from provincialism and insularity. When the automobile appeared on the scene it was an easy conclusion that given an intelligent people with easy means of transit and communication there could be only one result, a large market for automobiles and accessories, as has since proved to be the case. In the per capita ownership of automobiles Kansas is close to the top among the states. It is a curious and interesting fact, we may here note, brought out by an exhaustive study of the automobile situation, that the percentage of ownership of automobiles in any

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community or state is determined primarily not by the presence of good roads and the possession of wealth but rather by the intelligence and progressive spirit of its people.

Flourishing Business

Because of the growth and practice of intelligent agriculture there has been steady development in all the resources of the state, and in a demand for the commodities required for each of them. Fruit production on a commercial scale is beginning to be an important industry in the east and southeast. The vast oil fields are now being drilled and explored to the uttermost, and their great flows have added incalculable wealth to the state. Coal mining is a source of great revenue and the raising of live stock is on the increase, with all the industries that this implies, and has brought a demand for all the commodities that these industries need. For instance, in the dairy industry there is call for cream separators, churns, cream and milk cans, and a host of such like items.

To the outside world there has come the belated and wondering recognition of Kansas as a commonwealth where business flourishes and savings bank deposits increase, where are found independence of thought and speech, wide-spread education and intelligence, the marks of progressive and prosperous people. The natural resources are not many but the inhabitants, like Hamlet, have husbanded them so that they have gone far. These people typify the economic truth that intelligence and education not only increase the demand for all the commodities of commerce, but likewise distinctly elevate the quality of that demand by a growing call for the things of worth and merit.

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So the conclusion of the story of Kansas is that of a people who in the time of their tribulation "came back" by pitting their native courage, resolution, and intelligence against the forces of an often hostile and destroying nature and thus came out on top.

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NORTH CAROLINA

Heredity

The matter of greatest moment in the study of development in any state lies in the true perception of the dominant and compelling factor which most of all makes for progress in the future. Sometimes the essential factor lies hidden and to the casual observer would seem wholly lacking, as in the case of Arkansas where the presence of every material resource was of no avail until the slumbering giant of the spirit of its people was awakened by sudden necessity in the form of the invasion of the cotton-boll weevil. Sometimes, as in Kansas, it is the stress of environment and the ever-present threat of an often hostile climate which give the choice of a winning fight if the situation be intelligently met, or else certain defeat. In every state there is always the question whether the source of progress lies in heredity or in environment. Sometimes, as in Ohio, heredity is an inspiration; in Arkansas heredity was largely a blight on progress; while in California it is difficult to say whether development is to be attributed in greater measure to heredity or to environment. In the study of North Carolina the problem was particularly complex. Heredity there seemed to be at once a deterrent and an inspiration, and the workings and results of the human factors could be discerned only after the closest scrutiny.

Early Settlers

The people of North Carolina have always offered strong contrast to their countrymen in the neighboring

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states of South Carolina and Virginia. Those states were aristocratic. They were settled by families of old lineage and great accomplishment. They were the homes of great plantations and of definite and strongly marked class distinctions. They were at the front in every emergency, and history is full of their deeds and their sacrifices. They typified the splendor and glamor of an age that will always be the subject of romance and poetry. On the other hand the customs and ways of life and thought which they fostered, projected into practical modern times, constitute perhaps the greatest of all handicaps to genuine progress. Now in North Carolina the great estates and plantations were few; small farms were many.

The early settlers were of mixed origin, but all of much the same stiff-necked and stubborn type. They were English mostly in the beginning, but the English were followed by Scotch-Irish, Swiss, Huguenots from France, Lutheran Germans from Pennsylvania, and later Highlanders who fled from their native heath in 1746 after the disastrous rout of Culloden. Although means of communications were easily available throughout the state, save in the mountainous west, these various nationalities were slow to fuse and preferred each one to "gang his ain gait."

Revolution and Civil War

In Revolutionary times the sons of North Carolina had the immortal honor of first expressing the American spirit of independence in the Mecklenburg Declaration. They were dangerous foes when once aroused, and always bore themselves that the opposer might beware of them. In the Revolutionary War the homespun-clad riflemen at Cowpens and Kings Mountain were the first

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to stop the conquering march of Cornwallis and to destroy the reputation of Tarleton. So also during the Civil War their state was among the last to secede, but they furnished twice their quota of soldiers to the Confederate Army and won the derisive but admiring name of "Tarheels" because they always stood fast and immovable against the fiercest assaults, dying in their tracks rather than retreat. In all their history they illustrated the intensity of individualism and stubborn independence, with all the natural defects and virtues of those qualities.

Unmixed Blood

At no time, from the beginnings of the Colony up to the Civil War, were there outside influences of sufficient moment to disturb the even tenor of their way or to change the current of their thoughts. The emigration from Europe which in the first half of the nineteenth century swarmed into this country left the southern states untouched. For slavery was there, and the negro. And even today the mere presence of the negro in great numbers deflects from the South much immigration that otherwise would trend that way. So in North Carolina the native white race was unmixed with foreign blood, and there was no influx from the outside to question and discredit their modes of thought and customs of tradition and inheritance. On the other hand, there was little in environment to hold them back from change and advancement, once the impulse to progress should touch them.

Forests and Minerals

The eastern portion of the state is a great coastal plain, slightly elevated above sea-level. It is covered still with great forests of pine, except in the numerous swamps,

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some three million acres in extent in all where oak, cypress, and red gum are abundant. Further westward lies the Piedmont Plateau, which is higher and rolling and which has more timber, chiefly of deciduous hardwoods. In the western portion are the mountains, the loftiest heights east of the Rockies, with still greater forests. This vast supply of timber of both hardwood and pine constitutes one great source of wealth. There are many minerals in North Carolina though few of them in large quantities. Gold and silver and tin are found in small measure. There are deposits of copper, lead, and zinc, and large deposits of iron ore. There are vast beds of clay and equally vast quarries of building stones. Precious stones are found in moderation in connection with the largest producing mica mines in the country. But as yet the mineral resources of the state have scarcely been touched.

Healthy Climate

The climate of North Carolina is both healthy for the inhabitants and unusually favorable for agriculture. The state lies out of the general path of the low barometric areas from the west, and is affected by those from the Gulf and the West Indies chiefly on the fringe of seacoast. The climate is tempered by the Atlantic Ocean on the east, while the Appalachian Mountains protect the country from the severe blizzards which prevail to the westward. The annual rainfall varies from 45 to 60 inches in different sections. It is usually sufficient to furnish abundant flow to the numerous streams which traverse the state from the Appalachian Mountains to the sea and which supply the water-power that was to make up for the lack of coal. From the storm-swept inlet of Hatteras to the splendor of the towering Ap-

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palachian Ranges that have been well called the "Land of the Sky," nature is at all times friendly and bountiful. The wide range of resources and possibilities makes North Carolina almost a self-contained commonwealth in its ability to supply its inhabitants with practically all their needs. It is from one of the minor industries that we get the first glimpse of that inherent trait in the people of the state which is the key to the state's retarded development.

Fishing Laws

A survey of the seacoast, with its immense shore line and innumerable inlets with tributary rivers, some years ago revealed the possibilities of a fishing industry which in its essential elements was going backwards. Of all industries fishing needs most careful nursing if it is to be perpetuated. We were prone to treat it in the past as we for so long treated our forests, as if it were an immense resource which our utmost drafts would never deplete. The steady and alarming decline under such treatment, foreshadowing certain exhaustions, finally made necessary restrictive laws and careful restocking. But in these respects, until recently, North Carolina lagged far behind notwithstanding the instructive example set by Virginia, her next-door neighbor. The difficulty lay in the inability to get a state-wide interest in the general proposition. Each community thought only of itself, of its own interest, of its own local rights and independence.

For a long time all efforts to make the matter one of common interest were defeated. Such laws as were in existence were constantly violated by stubborn communities which felt that their private rights were being invaded and that they should be exceptions to the general rule. That

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most of the objectors were perfectly sincere in their attitude there was no question. But the attitude was caused by the Old Adam of sturdy and rampant individualism, not yet sensitive to the interests of the public at large, which we shall see cropping out later in education and agriculture. It is a good augury for the future that North Carolina has now a new state-wide fisheries law providing for the propagation of species as the first step in the rehabilitation of this industry.

Retarded Agriculture

North Carolina is essentially an agricultural state and has many farmers on many small farms. Of the total area of land, however, only about 29 per cent is improved. The remainder consists of swamps and overflowed lands, of mountains and forests, and the greatest problem of all of cut-over pine lands now mostly wastes of uncultivated sand barrens. It is true that according to statistics the state was making steady progress of late years, both in larger total yields and in greater production per acre. But the farming communities were not prospering as they should, and the difficulty lay somewhere in the farming methods.

Fortunately there ensued a movement most characteristic of the people, and one of far-reaching moment and promise for the future of the commonwealth. The impulse came from within, not without. It was typical of the manner in which the people of the state face every problem, honestly, courageously, with no desire save that of finding out the truth and endeavoring to remedy the situation. There was none of that boasting, too common in America, about great resources and advantages while the resources are lying undeveloped and the opportunities have been neglected; none of that glorifying

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the past and its great deeds, even though the present fails to live up to its glorious inheritance and traditions; none of those things, in fact, which are wont to pass for patriotic state pride and instead are mere bombast and words, words, words. These North Carolinians wanted no fool's paradise; rather, they were determined to size up the situation as it existed.

North Carolina Club

This movement and this sentiment found fitting expression in the North Carolina Club, an association made up from the students and faculty of the state university. The purpose of the club was the advancement of the commonwealth in every phase of modern life. Its members undertook to study the general situation of the state, to get the facts, and then to see what could be done. They found that one prime difficulty with North Carolina agriculture was that great sections were almost entirely devoted to single crops, cotton or tobacco, under the age-old delusion that since these were profitable money crops their cultivation must enrich the farmers who raised them. In this delusion the farmers lost sight of the profound truth which not only underlies farming but all state and national life, that the farm must first of all be self-contained, that it must produce its own food for man and beast as far as soil and climate permit.

Need of Diversification

By careful comparison it was found that North Carolina produced more in dollars and cents value per acre because of her money crops than did the states of the Middle West and West, but that she retained less of the money from her crops because so much went to those other states to buy food for man and beast. Thus, in

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entire contrast to the agricultural spirit of the times, her production was larger per acre and less per man than that of the states in the West. It was found that she sadly lacked equipment in suitable and necessary farm machinery and farm buildings. It was found that the people were far from realizing that farming as a successful issue must commence with a well-equipped plant. Farm income in North Carolina was principally from the sale of crops, while in the West it came from live stock and animal products. It needed but a little experience to demonstrate which of the two methods was the more profitable.

There was no calamitous boll weevil invasion at the time to bring home to the farmers the vital need of diversified farming. The campaign had to be one of deliberate persuasion and demonstration. Many volunteers took part and the State Agricultural College was camping on the job, but for a time the missionaries made slow progress. The first serious problem they encountered was the tragic percentage of illiteracy not only among the negroes but also among the whites.

Education

In common with many of the southern states, education practically collapsed during the Civil War and for some time afterwards. In time a new start was made, but progress was much hampered by constitutional restrictions as to the amount and proportion of taxes which could be levied for educational purposes. This difficulty was still further enhanced by one of those court decisions of an antiquated and fossilized judiciary, one of the calamities of American public affairs which often block the progress of reform movements for a long period of time. Soon after the turn of the century, however, the

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realization of the great need of education began to make headway. A more modern and enlightened court reversed the former ruling, thus permitting a liberal interpretation of tax laws and making possible the appropriation of greater sums of money for school purposes. As with the fisheries, however, the question of progress turned really upon the qualities of the people.

The extreme individualism of the people of the state tended, as it always does, towards provincialism and consequent illiteracy. Education must be a state-wide affair if it is to reach and affect all the people of the commonwealth. Where the appropriation of necessary funds is left in the hands of single communities, disinterested and perhaps antagonistic, the percentage of illiteracy is always high. The remedy was found, however, in the same awakened individualistic conscience that only needed to be shown its duty to immediately set about its performance. Today in the old North State the steady reduction in illiteracy is only a matter of time; the indifference of the people is gone.

Temperament

The second obstacle to better farming methods arose from the same qualities of personality. Community work is essential to the spread of the spirit and practice of modern scientific agriculture. It is a matter of demonstrations and lectures, of many exhibits at fairs and elsewhere, of the results of the new methods, of associations of farmers who together adopt the new ways. To make converts one by one is a slow and almost impossible performance. Some callings, moreover, are naturally conservative and cling closely to the ways and customs of their forebears. This is particularly true of agriculture, inasmuch as its followers formerly learned their

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business only from their fathers by word of mouth and by example, and not at all from books, and consequently never thought to question the infallibility of these lessons. The farmers of North Carolina were both temperamentally and traditionally slow to change until it was brought sharply home to them that they were pursuing a wrong system.

The Great War

The Great War had a profound influence. Its first effect was the low price of cotton in 1914 and 1915 which discouraged the raising of this staple on any extensive scale and consequently turned the thoughts of the farmers to diversified agriculture. Later came the general call for increased food production to feed our allies across the water. This was a vivid and forceful example of the shortsightedness of a great nation like England, vulnerable in the extreme because of her utter dependence upon other countries for food and clothing. So the efforts of the federal and state departments of agriculture and the state agricultural colleges were no longer as the voice of one crying in the wilderness. There was the unanswerable example of the absolute necessity of raising more live stock and more foodstuffs on the farms of the state, thus not only to stop the great outflow of money to purchase food for man and beast, but likewise to maintain the fertility of the soil. The year 1918, compared with the years preceding, showed a greater production not only of cotton but of grain and a larger number of live stock on the farm.

The beginning was made when the necessities of the situation were borne home upon the farmers and when their consciousness was awakened to the need of co-operation and community spirit, hitherto so foreign to their

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individualistic natures. Nothing is more difficult to the strong individualistic nature than co-operation with others, because of the necessary subordination at times of his own dominant will and judgment.

Agricultural Progress

From the reports of the State Agricultural College, however, comes the story of a steady advance throughout North Carolina rural life. It is the story of greater use of fly screens, of kitchen pumps and kitchen sinks, of electric lights and telephones, of running water in houses, of crowds that attend demonstrations on home economics, of the formation of farmers' clubs, of boys' and girls' pig and calf clubs. It is in effect the story of the beginning of the break-up of that physical and mental isolation which had been at once the state's greatest attribute and her greatest handicap.

One of the interesting side-lights of the increase in cattle, especially dairy cows, is the growing output of cheese. It is one of the outward and visible signs of an industry taking root, which makes for a constant source of revenue to its owners.

Two phases of agriculture, fruit and garden-truck growing, are peculiarly the result in a commercial way of the closest business co-operation among the growers. In no other way can success be attained. These forms of production have had a remarkable development in North Carolina in recent years.

Fruits and Vegetables

The cultivation and supply of fruits and vegetables goes along with the sun in its annual northward swing from December to June. The thousands of carloads of early fruits and vegetables that weekly go northward

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from the South Atlantic seaboard through the Norfolk gateway to the great cities of the East Atlantic Coast mark and typify the far-flung influence which the growth in taste, in wealth, and in education has upon the commercial life of the nation. Highly organized industry supplies fruits and vegetables all the year round, in response to that luxurious and discriminating appetite which has ever been one of the accompaniments of a highly developed civilization and which in our own country has been diffused to an extent unknown in any of the great civilizations of the past, or in other lands. Because of our wide-spread wealth and education, and our inherent democracy, these wholesome and attractive fruits and vegetables lie within the province of the great mass of our people. The development of the taste and the purchasing power of the people at large make possible wide-spread ramifications of production, distribution, and transportation.

Now all the vegetables and all the fruits, with rare exceptions, of the states to the north and the south are grown in North Carolina and in constantly increasing quantities. The great coastal plains are especially fitted for the raising of fruits and vegetables, not only because of soil fertility but because the climate is tempered both as to heat and cold by the great body of salt water that stretches inland in the numerous sounds and inlets. The early vegetables come on the market when those from the states further south have had their innings, for there are great railway trunk lines which quickly and efficiently carry the food products to the great city markets both north and south. Much of this production, especially of peaches and apples, has come within the last generation and is one of the evidences of progress in co-operative work.

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Co-operative Marketing

The cultivation of the endless succession of truck gardens along the coastal plains is an affair of the individual. But the problem of marketing, the all-important factor, is a thing of co-operative effort if the produce is to be sold in large volume at any considerable distance. It involves a study of the cities that want the produce; of the times when they must be shipped to find a ready sale at remunerative prices; of the speed, facilities, safety, and certainty of transportation; and of all the intricacies of accounting that make plain the factors of costs and of selling returns. The essential knowledge of all the elements of the situation, and the business acumen to make so delicate and complicated a business a successful venture, are beyond the ken and experience of the average small garden-truck grower. They call for an organization of all the growers, with paid officials of expert knowledge and much experience. The same thing is true also of fruit for commercial purposes, save as regards those individual growers who find markets near at hand to which delivery of their products is easily made.

In the mountains of the western portion of the state, for instance, the means of communication are still largely crude and primitive and only as good roads are constructed do the mountaineer farmers find ready markets for the products of their fertile valleys. And good roads come only with the development of the spirit of co-operation.

The experience of the North Carolina growers of fruit and vegetables for commercial purposes crystallized into the formation of co-operative associations as the sole method of conducting that great distributing business which is such a feature of productive and commercial life in their state.

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Water-Power

It is in manufacturing and industrial life that North Carolina most illustrates the drift towards co-operative work. The state naturally is without cheap and abundant fuel, the basis of modern manufacturing. She has but little coal, for such deposits as she has are still undeveloped. Nor has she oil or gas. Her vast forests are more valuable as lumber than as firewood. But in her numerous streams, in their fall from the Appalachian Mountains to the Atlantic, she has a source of power at last being utilized whose value and efficiency has been vastly increased by electricity, especially in its various modes of power transmission. These water-power possibilities were early perceived but in the ante-bellum days there was no serious attempt to develop them.

Essentially the old South was an agricultural country, cotton being king. Essentially the negro was an agricultural worker. Neither history, temperament, nor education, or rather the lack of it, fitted him for industrial life. This is still true today, though in lessened measure, and it will take the long process of time and education to alter this vital fact. Moreover industrial life is a disturbing element, socially and politically, where it prevails in extensive measure. It has always been the fact in all countries that slavery in some form or other has been the accompaniment of agricultural life, and slavery and industrial life are not compatible terms.

After the Civil War the South was too largely engaged in saving her soul alive from the untoward and sinister problems which threatened the very existence of the white race, to make great progress in economic ways. Moreover, as she was completely ruined financially, and her past economic structure had fallen into sudden and general ruin, she had to start over from the beginning.

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The great potential water-power in her streams had to await the coming of the turbine and of the electric dynamo for full fruition.

Factories

When manufacturing began it turned to those staples the raw material for which North Carolina produced within her own borders and which could thus more economically be transformed into finished materials. There gradually grew up tobacco factories, lumber-mills, planing-mills, and all manner of wood-working plants, especially furniture factories, because of the vast forests which covered so large an area of the state. Later, of course, there came plants for making coopers' supplies and bottling mineral waters, canneries, brick-kilns, cement-mills, potteries, and then all that flotsam and jetsam of small manufacturing plants for indiscriminate commodities.

But the heart of the story of manufacturing in North Carolina is, and always will be, the story of the cotton-mills. That is the beginning of the last chapter in the transformation from the ways and customs and mental methods of the past, of the people of the state, to those of the present and the future.

The Cotton Plant

Cotton is essentially the fabric of civilization. It is at once the most universal, the most economical, the most practicable and adaptable to many uses of all the fibers for clothing human beings. Cotton is the clothing of the many but has other advantages besides, and its by-products have constantly increasing value. It furnishes the cheapest of all garments and moreover, since the invention of mercerizing, it enters into finer and more expensive

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fabrics. Its story is the history of many nations, from ancient India and Babylon to our own times. Its cultivation was intimately related to the life of the ante-bellum South; and in these days likewise the recrudescent South under new conditions of agriculture and industrial life still finds in cotton the chief source of wealth and prosperity.

It is peculiarly a plant of latitude, its northern limits being clearly defined by the occurrence of late and early frosts. While cultivated successfully in the tropics it suffers there from torrential rains, from too great growth of leaf and branches at the expense of fruit, and from abundance of predatory insects bred by a hot, moist climate. So our own South is the fitting place for its general growth because of favorable soils and climate, a hitherto plentiful supply of labor, ready means of transportation to near-by markets, and likewise all the facilities for manufacture of the raw material into cloth and kindred fabrics. From 55 to 60 per cent of the world's supply of cotton is grown in our southern states and about 60 per cent of this production goes abroad, mostly to Europe, which relies upon us as her main source of supply.

Cotton Manufacture

It was long ago obvious that the true place for the manufacture of cotton was the states in which it was principally grown. But there were difficulties, seemingly insuperable, and progress in such manufacturing came slowly. Beginnings were made in North Carolina, however, as long ago as 1813 when the first cotton factory in the state was erected in the Piedmont section and run by water-power. By 1860 there were 39 mills and 41,900 active spindles in the state, but in the reconstruction

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period their number fell off sadly. Construction matters went slowly up to 1880 and then took on new life. The advantages of being close to needed raw material, and of cheap, abundant, and dependable water-power, became so obvious that many of the people of the state invested their savings in cotton-mill manufacturing. There were seasons when the manufacturing business was very prosperous and remunerative and this was a stimulus to further growth. At the present time there is much new mill-building, and the state ranks high in the number of its mills, spindles, and employees. These mills now consume practically all the cotton raised in the state of North Carolina.

Improved Condition

Recitals such as this are common in many industrial centers of our country. Local pride, very pardonably, exhausts language and figures in describing the prosperity and attractiveness of the section. But unless the industrial advance carries with it the betterment of the general welfare of the people it is not worth while. In North Carolina, however, the growth in the number of mills and the rise of an employee class is the history of a profound, far-reaching, and permanent change for the better in the social, economic, and intellectual life of great numbers of the people.

From the beginning the mills had their raw materials close at hand and possessed an abundance of water-power. But there remained the all-important question of labor. The negro was confessedly unavailable, save in a limited way. For there still persisted in him the temperament of at once the child and the primeval savage. Continuous, monotonous work, with consequent responsibility, is irksome to him in the extreme. Indeed,

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work in general save under pleasant conditions, is to him a passing phase of existence bearable only because of its necessity.

Labor Problem

As the large towns and cities were few there was but one resource in this situation and that was found in the country folk, the numerous farmers and small cultivators in the pine barrens and to a lesser extent the mountaineers of the west country, who furnished the labor for the mills. There has been much unknowing and foolish talk about these people, oftenest by peripatetic observers from other sections of the Union who branded them as "poor white trash" and "crackers." Some passing observers have also given out partial and misleading figures concerning the extent of the ignorance and illiteracy prevailing among these country folk. In the main they were the simple, sturdy dwellers on the soil who had made the state what it was by their rugged individuality. There was undue illiteracy among them because of their mental isolation and because of other things for which they were not responsible. But when all had been said, they were of the same stripe as their ancestors whose stubborn courage and endurance broke the power of Cornwallis at Cowpens and Kings Mountain and filled the ragged ranks of Lee's army in the last battles around Richmond. They flocked to the cotton-mills, men, women, and children, in vast numbers—probably some 150,000 to 200,000 in all as time went on. There opened up to them the prospect of better living, of more sociability, of improved financial conditions, of the excitement of the town even though small, compared to the dead, drab level of their lives on the small farm.

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Social Changes

There was of course an unfavorable side to this. There was the growth of the city at the expense of the farm, and the increasing proportion of urban dwellers to those on the countryside. There was the inevitable social and economic unrest which is always the portion of industrial life, in contrast with the conservatism and clinging to the ideals of the past which animated these workers when on their native heath. There was much child labor, whole families in fact working together in the same mill. There was a lack of nature's surroundings in the monotonous homes where they were segregated in community villages by the mill owners. As against this it was the first time in their lives that they had steady jobs, regular hours, and an assured income. They now have social intercourse, amusements, and the opportunities for education, all of which were largely denied them before. There are schools for the children of a nature and convenience never before known in the state. As a practical proposition the best thought is that child-labor laws to be really effective and beneficial in any state must be accompanied by a compulsory education statute. Otherwise many of the children will be doomed to that idleness which is the chief incentive to going astray alike in men and children. There is much community work done among these mill workers, but necessarily of a kind and nature at which their native independence does not take offense. In all these matters the mill owners voluntarily bear their full part.

Increasing Efficiency

The matter of greatest moment is the natural change in the mental attitude of the workers when associated in large groups and realizing the necessity and wisdom

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of that co-operation which their daily work imposes. From this material, seemingly unpromising yet inherently sound and wholesome, there is being bred a race of intelligent, and in time, educated and efficient mill workers in whose hands rests the coming of that day when through their skill and co-operative results the South Atlantic states must inevitably become the cotton-mill center of the world.

During the past five years there has come a parting of the ways in the story of North Carolina. And in the awakened interest in better and more diverse methods of farming, in the community work throughout the state which seeks advancement in all social and economic ways, in the steady growth of education, and in the diverting of the old spirit of strong and sturdy individualism into the ways of co-operation, appears the beginning of an economic development which will place the state in the front rank of the "self-contained" commonwealths of the Union.

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WISCONSIN

Nature's Limitations

In every state in the Union the unceasing problem was, and always will be, the development of such resources as fortune bestowed upon the commonwealth. There are limitations to various industries in every phase of human endeavor, imposed by climate, soil, or some other handicap, which cannot be overcome in an economical manner. North Dakota can no more raise oranges commercially than Florida can produce apples after the same manner. But the real genius of the people consists in perceiving clearly just how far their state can go in certain productive ways and where the line may safely be drawn. This the people of Wisconsin have done in a remarkable degree, and thereby hangs this tale. For the study of Wisconsin was made with the aim of discovering what the state possessed in resources and what has been done with them, and then of forecasting the future of the state as a good hunting ground for business. The purpose was not simply to discover what resources were in process of development; rather to analyze the methods which had been followed and to determine in which direction the growth was tending and how far it would go.

Continental Climate

The topographic features of Wisconsin are the many beauties of plains, hills, and dales, much rough and picturesque country, many rivers with steady flow, thousands of lakes, and long stretches of forest. It is a land

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of summer resorts, and of constant out-door life in all seasons of the year.

The climate of the state does not appear very inviting —on paper—so far as figures and statistics are concerned. There are wide variations of temperature, with cold winters and often rather hot summers—what is known as a "continental climate."

The extremes of temperature, however, are modified by the two great lakes, Michigan and Superior, which wash the shores of eastern and northern Wisconsin, and which exercise a profoundly favorable influence upon the climate of a large section of the state. The northern latitude adds much to the length of days in the growing season, a decided advantage to agriculture. The growing season is sufficiently long, moreover, for all the agricultural productions grown in these latitudes—from 160 to 170 days in the southern portion and 100 to 120 even in the extreme north.

The rainfall is remarkably uniform, the annual mean being 31 inches. The seasonal distribution, which is the important factor, is especially favorable, as 50 per cent of the annual precipitation occurs between May and September. This precipitation is also rendered more effectual by the slight evaporation compared with states further south, so that droughts are comparatively rare.

What the statistics of the weather do not show, moreover, and only observation can disclose, is the tonic and inspiring effect of the climate upon human energy as a constant incentive to initiative and action.

Soil

The chief wealth-producing factor in Wisconsin is the soil. Yet the soil is not nearly so rich as in the black lands of central and northern Illinois, or in the alluvial

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lands of the Mississippi river southward from the mouth of the Ohio. Furthermore, according to the federal census of 1910—only about one-third of the total area of the state consists of improved land. Much of the surface is covered by forest, much by swamps and peat bogs, much by cut-over pine lands, now grown up in almost impenetrable second growth thickets, much of it is rough hilly country very difficult of cultivation. Yet despite these facts the state stands among the leading commonwealths in every phase of intelligent, progressive agriculture. The people of Wisconsin have made the most of their soil resources.

Agricultural College

Much of the state's progress in agriculture is due to the far-reaching influence of the Agricultural College of the great State University which crowns the heights above Lake Mendota in Madison. In this democratic institution of learning, practically everything is taught, from how to milk a cow to a lucid interpretation of the nebular hypothesis, and all with like thoroughness and impartiality. The University of Wisconsin has given no greater service to the people of this state than in applying the methods of scientific study and experimentation and of intelligent business analysis to agriculture, the greatest and most fundamentally important business in all the world and yet one which has been rarely regarded as a business, but rather as a pursuit to be learned only from experience in the shape of long, hard, unthinking apprenticeship.

It was early apparent that the purpose of the leaders of thought in Wisconsin public life was to study first the actual facts of the problem presented, and to formulate the theory of its solution on the basis of an intelli-

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gent analysis of the facts as they existed, without any regard whatsoever as to preconceived opinions or as to what bearing tradition and custom might have upon the question.

Experimentation

The university authorities saw that the general conception of personal knowledge and expertness as a qualification for successful farming is true enough, and so they have experiment stations throughout the state where every phase of farming is pursued with most convincing illustrations and results. But far beyond this they saw the need of scientific experiments and laboratory studies which should discover the fundamentals of cause and effect. Accordingly they entered upon a systematic soil analysis intended to cover all the arable land in the state, to discover not only the constituents of the soils but also what they lacked that might be supplied by artificial fertilizers, in order that each farmer might know the products best suited to his farm.

They made studies of the life history of predatory insects, the worst enemies of the farmer, so that means might be found of destroying them and preventing their ravages. They made countless and ceaseless experiments as to the nature and quality of agricultural products best suited to the soils and climates of the state; for instance, one variety of corn differs from another variety in its potential production per acre and its resisting powers against disease, insect enemies, and drought. They made ceaseless search throughout the country for things not indigenous to the state yet which could profitably be grown there—alfalfa, for instance, is domiciled in Wisconsin as a regular product. Then there went forth the new and startling propaganda that agriculture

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was best learned in school, as chemistry is taught and learned, exemplified and illustrated with constant accompanying experiments. The university attendance increased some 2,000 per cent in the decade 1904 to 1914, and the increase was mostly from the farms.

Educational Leaven

To teach the young farmer the ways of science in his calling was the first purpose of the Agricultural College, to educate the younger generation who would unconsciously and as a matter of course accept the modern method of farming and thus form that little leaven which was to leaven the whole mass. It was early apparent, in homely phrase, that "it is hard to teach an old dog new tricks." In other words, most of the generation of grown-up farmers in the beginning looked askance at the theories and precepts of the Agricultural College, regarding them in the main as merely "new-fangled notions." They clung to the idea that farming could be learned only by long experience in working on the farm and not through study of books. The education of the older farmers came later and grew more slowly though at present it is state-wide both in purpose and extent.

Extension Work

Teaching the older farmer involved the consideration of another phase of education, which although not new in theory was at that time little known in practice in this country. It required but little thought to realize that comparatively few of those who should be taught ever could or would attend the university and the Agricultural College, and that the only alternative was to carry the teachings of these institutions to those who

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would hear in their own homes. Hence arose university extension work, a thing of extraordinary complexities and many heart-breaking disappointments. There is the lack of personal touch and contact between teacher and student, the lack of the incentive of competition with other students collected in the same place, and the lack of incentive to continued work other than the individual will and determination of each separate student. Yet the progress of this teaching outside of the university walls goes steadily on, and now reaches thousands of the older farmers by means of correspondence, specially trained lecturers and demonstrators who tour the state, and classes at certain extension centers, taught by men of the university. All this has led to courses for these older men at the university, and to "farmers' week" each year when many thousands of them gather at the university to listen to lectures and demonstrations.

The definite and final purpose of these teachings, both within and without the State Agricultural College, was to make the farmer an intelligent student of his business, a business which requires an extent and variety of knowledge not often suspected. Such study should enable him to grow crops of higher quality and larger production per acre, and that is just what happened. For in all the products of her farms, Wisconsin stands in the first rank of the states as to quality and production per acre.

Marketing Problems

The students of the agricultural situation soon perceived that their job was but half done, for they were up against a larger and far more complex problem, that is as old as agriculture and for whose solution we are, as yet, still groping in the dark. It was easy to show that

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large crops were usually due to greater production per acre rather than to increased acreage. But the answer of the experienced farmer was that the only result apparent to him in such cases was a lower price for his products, and the receipt by him of less money on the whole than if he had raised smaller crops at a higher price.

The Wisconsin trend of thought went straight to the heart of the matter. It saw that the possibility of increased production per acre, or even per man, depends upon the solution of two problems: a competition that is world wide, and some method of distribution that will bring in closer relation the price received by the farmer for his products and that finally paid by the ultimate consumer.

The farmer is the only producer in all the world who has little to say as to the price he shall receive for his products, for they are determined for him by universal competition and by his facilities for marketing what he produces. The real solution, it was found, lay in reducing the cost of distribution of his products.

Co-operative Organizations

One of the most striking evidences of the peculiar common sense and analytical tendency of the Wisconsin mind is found in the methods pursued in studying this problem of distribution. There was first a patient and thorough investigation of the facts by first-hand observation, and without the slightest attempt to prove a theory in advance. Then there followed the formulation of plans which sought to solve the problem in a practicable way, giving due consideration to all the peculiarities of the conditions as they existed. There was no ignorant outcry against the middleman in general, but

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ways were found of dispensing with some species of middlemen who had no cause for existence. In particular the establishment of farmers' co-operative organizations made possible effective marketing arrangements and cut out a number of useless expenses.

There are now over 2,000 co-operative farmers' organizations in Wisconsin and they are gradually extending to every phase of agricultural life. In the main they do not attempt to go to the consumer direct, as that has been found both impracticable and uneconomical, but distribute their products through some form of middleman. In handling live stock, for instance, they combine a number of small lots from various farmers, in carload shipments, and thus secure prompter deliveries and lessened freight charges.

Dairy Production

Now in all this Wisconsin accomplishment, the matter of moment was the enthusiasm, definiteness, and directness of purpose with which the leaders of thought infected the people of the state. Methods which broke away from the influence and traditions of the past, and set new and apparently impossible standards, were promulgated with such clear-cut thinking and determination that they became at once a conscious part of the general life and purpose of the people of the entire state.

In nothing was this constructive spirit more marked than in the establishment of the great dairy business in which Wisconsin is pre-eminent among the 48 sister commonwealths. In the beginning of things there was no apparent reason why this should ever be so. In the essential matter of cheap and abundant food for dairy cattle, and live stock in general, Wisconsin was not possessed of the same advantages as some states in more

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southern latitudes. Only about one-third of her total surface area was in improved land capable of cultivation. The long, cold winters and the consequent presence of much snow-covering made care and feeding of live stock necessary during such periods, and this is always expensive. Yet in spite of this apparent lack of advantages the production of cheese in Wisconsin grew from 79,000,000 pounds in 1899, to 148,000,000 pounds in 1909, and to 298,000,000 pounds in 1918, or more than one-half of all produced in the entire United States. Meanwhile the latest available statistics indicate that the production in the country outside of Wisconsin has decreased instead of increased. The output of other dairy products, milk and butter, has grown in like proportion in the state. There are now about 2,000,000 dairy cows in Wisconsin, the number having doubled in the past decade, and they constitute about 8 per cent of the total milch cows in the entire country. The value of the products of this great herd in 1918 was about $200,000,000. There are about 3,500 factories engaged in making butter and cheese.

Babcock Test

Of the two factors in the dairy production of Wisconsin, one is obvious and easily apparent. It is the simple and direct fact that the dairy industry has grown far more in Wisconsin than in any other state because it has largely been pursued upon a strictly business and scientific basis. In 1885 there was invented the centrifugal cream-separator which mechanically and efficiently separated cream from milk and thus made available both constituents for various manufacturing and consumption purposes. Following this, in 1889 came the invention of the Babcock test of the amount of butter

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fat in milk, by Dr. Stephan Moulton Babcock of the Agricultural Department Station of the University of Wisconsin.

These two inventions made possible for the first time the manufacturing of dairy products on a great scale. Prior to the invention of the Babcock test, milk was sold to factories on the basis of the volume of milk when the true measure of the value of milk for making butter was the amount of the butter fat content. Those owning herds whose milk ran high in butter fat were placed at a serious disadvantage with those whose milk ran from one-half to one-third less in butter fat. Moreover, the door was always thus left wide open for the unscrupulous producer who watered his milk or skimmed off a portion of the cream. It was impossible to establish enduring co-operative associations when these easily practiced opportunities of fraud existed. The Babcock test was one of those inventions, like the cotton gin and the twine binder, which open up unlimited possibilities of expansion to a hitherto halting and perplexed business. There was no thought of patenting this invaluable invention, as the ethics of the university demanded that all of its inventions and discoveries be the property of the public as a part of the service which the institution seeks to render the people of the state.

Following the Babcock test came the Hart casein test invented in 1907 by Professor E. N. Hart, likewise of the Agricultural Experiment Station, which determined the value of milk for making cheese.

The Milch Cow

The further problem then ensued as to the improvement of "Sis Cow" as the unit of production. The first

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requirement, providing food in sufficient quantity and at reasonable prices, was met by means of the silo which preserved green food for live stock through the winter. By 1918, 64,000 silos had been erected and they are increasing at the rate of 5,000 per annum. Experimentation developed the interesting and very logical fact that animals, like human beings, thrive best on a varied diet, and so there ensued the "balanced rations" of different foods in varying proportions and in proper sequence to produce the best results in milk production.

With a Babcock tester and a pair of scales, it became a very simple process for the farmer to test the value of every milch cow as a productive unit and to get an accurate estimate of her value compared to the cost of feeding and care. Then developed the confirmation of the old adage that "blood will tell," as blooded cattle with a known ancestry were the real milk producers compared with the "scrubs" guiltless of high pedigree. Then was inaugurated a set program of breeding from pure blood sires, substituting pedigreed cows for the nondescript. One famous milker of a long line of ancestors gave 14,000 quarts of milk in a year, and was a better paying investment than stock in a flowing oil well.

The utmost attention is given to such an investment. Every care is used to preserve the health of the herds and to stamp out disease. The industry is made the subject not only of study but of teaching. The branch experiment stations of the university carry its story all over the state. Demonstration trains go about through the state in the farming region showing by actual and visual examples the nature and meaning of the dairy industry and how it can be intelligently and profitably pursued.

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Cut-over Lands

Now the growth of the dairy industry was a practical exemplification of the age-old principle that live stock is an essential part of every farm, for the presence of the great herds of dairy cows has been the prime factor in preserving and adding to the fertility of a soil that threatened to become exhausted by constant cropping. Likewise, it is now solving the great problem of the reclamation of the cut-over lands of the northern portion of the state. Not so long ago this section was largely covered with white pines, and upon its deforestation there ensued a jungle growth of tangled brush. There was, and is, much hardwood left, but that is going, although Wisconsin still continues to be a large producer and manufacturer of lumber. When cleared, however, this cut-over section is land of grass and clover. So the dairy now has followed the lumbermen northward, and the cheese and butter factories are treading close upon the heels of the dairy cow.

But the settling of this cut-over land is far from easy. It is far north and the winters are long and cold. The underbrush seems impenetrable, and the stumps of the fallen forest trees decorate the landscape everywhere and have to be blown up with dynamite or T. N. T. And here enters that second great factor in the development of Wisconsin, the recognition both by the state and by the leaders of thought of the mutual obligation of patriotism between the people and the state.

University Aid

In Wisconsin the conception of service is two-sided, and the part of the state is as clear-cut and effective and as definite as that of the people. And in nothing is this more succinctly illustrated than in the story of the

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redemption of the cut-over lands, in which the university and the state are conducting a joint campaign. The soil is being analyzed and tested so that every settler may know what he buys and the agricultural uses to which it may be put. The university furnishes him without charge every form of advice and practical aid. This extends to the social life, the sanitary surroundings, the comforts and conveniences of home, for there is full realization that social and economic problems are inseparably related in development.

Agricultural Creed

This work with the cut-over lands is a part of the endless program that seeks to develop to the utmost the possibilities of every section of the state. This program has been given striking expression by Dean Russell of the College of Agriculture in the University of Wisconsin, "Wisconsin's Agricultural Creed," portions of which are presented herewith:

Better Farming. We need not only to know what to grow but how to grow it. Better farming is not only a means to financial success but a means to better thinking and better living.

Improved Farm Homes. A contented farm family depends much upon whether it dwells in a house or in a home. Improved farm homes are not centers of drudgery and dull commonplace living from which the boys and girls will want to escape as soon as possible, but they are centers of contentment where not too much hard work brings satisfaction and better standards of living. We of Wisconsin appreciate that improvements are needed as much in the home as in the barn and in the field. If a silo or milking machine serves to reduce man's labor and yields better results, so will running water in the kitchen, a well-equipped bathroom, and labor-saving devices in the laundry. . . .

Fair Prices. The individual farmer cannot set a price for his products and say he will not sell until he gets it. His

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returns are based upon the world's demands where his product is consumed. Transportation and all intermediate charges between the producer and the general world market must first be deducted and the farmer takes what is left for his labor and investment. To have a permanence in agriculture, this price must keep up production. The journey from the field to the final consumer should be as direct as possible, and for service actually rendered each unit throughout the chain should receive a return consistent with the service rendered. Groups of farmers can study the markets and the relations between supply and demand. They can then feed the market so as to keep supply and demand balanced throughout the season. . . .

Responsible Farm Organizations. Men give the best service to themselves and to their fellowmen when they co-operate for mutual helpfulness. Wisconsin, already a leader in co-operative organizations, must continue to be known for its many sound, successful, mutually conducted enterprises. The country can well follow the lead of the city in this matter. . . .

Vitalized Rural School Education. Modern rural schools have live teachers in good school buildings. The country school shows the health of the community. Head work is rising in valuation in the country and the best rural schools are running along lines of broad community interests. . . .

Humanized Rural Life. How to farm is not all there is to farming. A satisfied rural life may come in part through a community effort in which ideas circulate and in which an association of farmers and their ideas can take place. Living on good terms with neighboring folks gives health to the body and mind. Man is at his best when he lives and thinks with other people. . . .

Manufactures

The same spirit of energy and thoroughness is found in the story of manufacturing. Wisconsin has no natural fuels of any moment, save peat bogs whose usefulness still lies in the future; she has no coal, oil, or gas within her borders. Yet in 1914 she was the ninth state in the Union in manufacturing having climbed up from the twelfth place since 1870.

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Her manufacturing embraces all manner of articles, and this in spite of the fact that there are comparatively few metals and minerals native to the state. There is iron ore in the north, especially in the Gogebic Range, and zinc and lead ore in the southwest. There are many mineral waters, much clay, limestone, sandstone, and granite, and the most is made of them, but in the main the requisite raw material must be procured from other states.

Public Service

In Wisconsin there is the highest expression of that spirit of the public school system that the real purpose of education is to develop intelligent men and women, fit to assume their duties under a democratic form of government. The story of citizenship, what the individual owes to the state, finds its final expression in the State University. In Wisconsin, as in many other states, the State University has broken through the bonds of custom and tradition, and is much more than a mere institution of learning, more even than the technical school which fits men and women to earn a living in their chosen professions; it is in fact the final preparation for the life which every citizen of the state and country must live if the state and country are to persevere in the ways of democracy. It is this that marks and distinguishes the State University from all other forms of higher education that have preceded it. The one thing which it seeks to impress upon the boys and girls within its portals is that, as the state has done its duty by them, there naturally arises the reciprocal obligation that, so far as lies within them, they shall make the state a better and a fitter place for humanity to dwell in.

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Progressive Laws

In a nation such as ours, where politics and politicians play so great a part, and where both politics and politicians have often been so corrupt and self-seeking, any policy that aims solely at the welfare of the public has a rocky road to travel. It is sure to encounter hostility and bitter opposition at every turn. Such a policy at times is certain to go wrong, and its advocates are equally certain to make mistakes. That is the inevitable fate and experience of all who run counter to the usual drift of political self-seeking.

Out of all this welter of misrepresentation, political intrigue, and human selfishness on the one hand, and sometimes mistaken enthusiasm and impracticable theories on the other, there have emerged a code of laws and a set of practices which have placed Wisconsin in the front rank of the states in all the progressive and beneficial policies of a commonwealth in relation to its people. The common sense, the practical utility, the far-seeing vision, and the far-reaching beneficial effects of these principles and methods, appealed to the people who through teaching and practical demonstration have become openminded to every plan of betterment and education for the many.

In the vexed matter of taxation there has finally, through much study and experience, been perfected a system which, as taxation goes, is both just and equitable and falls mostly upon those who have the ability to pay.

Commissions

The Railroad Commission held that the first duty of the railroads and of all public utilities lay in adequate service to the public. But they held also that the stockholders of public utilities were entitled to a fair return

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upon their investment. And these principles, often ignorantly considered as conflicting, have been worked out both in protection to the utilities, and in better and even more economically rendered service to the people. Equally has the Industrial Commission sought to harmonize and render mutual the relations between employer and employee, never as a special advocate of either, but as the judicial arbiter. The result has been a strict justice to both sides which minimizes the class strife that rests mainly on man's injustice to man.

Scientific Attitude

The observer found in Wisconsin—years ago even—a very practical endeavor to make the most of what nature has done for the state by a searching analysis of the actual facts and the exercise of a far-seeing vision as to their possibilities. This attitude manifested itself first in a somewhat unusual combination of scientific study and plain common sense in dealing with every-day problems, and secondly in a recognition of the mutual obligation of the state and the individual.

A forecast of the future of the state as a ground for business opportunities required then merely the tracing out to their logical conclusion certain wide-spread progressive characteristics and tendencies among the people, and especially among the leaders of thought. The story of Wisconsin was manifestly the story of a house built upon a rock, of whose permanence and continued improvement there could be no question. For it represented the conviction, translated into action, that education and intelligence are not only the foundation stones of democracy but likewise the greatest of all business assets.

Nothing more nobly typifies the spirit which made

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these things possible than the story of the Wisconsin men, from the field, from the workshop, from the university, who lay out in the darkness in Belleau Wood awaiting the conflict of the coming day, and all through the night sang the great football song of the university, "On Wisconsin."

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OHIO

Interesting Phenomenon

It is one of the peculiarities of communities and countries that their enterprise, initiative, and progressiveness are usually in inverse ratio to their age and population. The common explanation of this phenomenon is that with the age they acquire the wisdom which we commonly ascribe to human beings beyond middle age which has enabled them to solve most of their economic and social problems. It is assumed that there is not the demand and reason for constructive enterprise in those countries which have been long developing and where the economic problems of life have been apparently worked out to their full conclusion. But it must be said that these explanations all beg the ultimate and fundamental question. They are but half-truths, passing current only because they attempt, in a superficial way, to give the reasons for an interesting phenomenon, the real cause of which lies far beneath the surface.

Worship of Past

Whether in the old world or our own, the inherent difficulty in the way of a community's continued growth lies in the encumbering effects of a past which discourages the newborn desires and aspirations of the ambitious present. There is too much unintelligent reverence for the beliefs and opinions of the past, which are clothed in a mystic and sentimental glamor. Too often there is the same reverence for the economic methods of the forefathers as for an ivy grown church, centuries old,

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or a great painting by an old master. The ways, customs, and opinions of by-gone days are accepted without question as being the finished result of human wisdom and experience, when the very condition of continued growth—of life itself—is change. In such a community only the daring few, unpopular Philistines as they usually are, even so much as question existing things or perceive that most of the idols have feet of clay.

The first requisite of progress and advancement is the doubt that present conditions are all they should be. There can be no desire for better things unless there be perception of the weaknesses and failings of existing conditions. Whenever the present is all-sufficient to those who live in it, there is small hope for the future. What then is the likelihood of future business development and possibilities in a state which has, in full measure, history, tradition, precedent, a large population, and abounding wealth of every description, which precludes the spur of necessity? For such is the state of Ohio.

Will it run true to form? Will its energies gradually slow down as its prosperity increases and succumb to the retarding forces of tradition? Or is there a vital and abiding reason to make it a notable exception to the general rule?

Diverse Settlers

In the case of a state with a history which extends back into the days before the Revolution, it is first to seek its essential characteristics in the story of its past and in the inheritance which has come down to it. The original thirteen colonies were as diverse in racial strains as they were in climate and topography. For the first

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settlers were from many European countries. The Dutch of New York, the Huguenots of South Carolina, the Scotch Highlanders of North Carolina, the Germans of Pennsylvania, had as little in common as in their native European habitats. There was even a difference between the two English branches, the Puritans of New England and the cavaliers of Virginia. To create a common bond of interest and sympathy among such diverse peoples needed over a century of dwelling side by side. Complete fusion came only with the exigencies of the situation, which demanded concerted action if their liberties were to be preserved.

In the formation of most of the states west of the Alleghanies, the same trend toward the predominance of certain racial strains prevailed largely in the beginning. Kentucky, for example, was settled principally from Virginia, and Tennessee from North Carolina. Each had the peculiarities of its mother state. But the original white settlers of Ohio came from all the states, so that her people always have been a composite population, typical in many ways of their brethren in the other commonwealths and accounting for much of their present open-mindedness and cosmopolitan point of view.

Western Reserve

Two of the original strains, the Puritans from Connecticut and the descendants of the cavaliers from Virginia, brought with them to Ohio widely varying types of democracy, apparently contradictory and conflicting, yet each truly representative of the genuine American pioneer spirit, which placed independence of thought above all tradition and inheritance. The northern portion of the state, as far east as Sandusky and embracing nearly fourteen counties, was settled originally

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by Puritans from Connecticut and was long known as the Western Reserve of Connecticut. In all the history of Ohio the influence of this section has been out of all proportion to the number of its inhabitants and the extent of its territory. For the Western Reserve embodies the nature and spirit of Puritanism, of which Carlyle has well said: "Intrinsically the spiritual purport of it has become inconceivable, incredible to the modern mind."

Puritanism

In these days of liberated modern thought, we are apt, in our superficial way, to think of Puritanism only in connection with its austerity, its bigotry, its intolerance of opposition to its own methods of thought and ways of action. We are too prone to stress its dark and gloomy philosophy, which casts a blight upon innocent enjoyment and harmless pleasure, forgetting that all great reform movements have their periods of decadence, when the earlier ideals become smeared and dimmed by contact with the world. For Puritanism arose at a time when it was most needed to save the nation of England from going down into the depths of degradation and decadence. When life of the ruling classes was rotten to the core, there came from below, mainly from the middle classes, the pronouncement that life held something more than ease, indulgence, and the pleasure of the passing hour. For the early Puritans were deadly in earnest, as are all great idealists. Nor did the flame of this earnestness wax dim in their American decendants, despite the extravagances and incrustations which marred some of its later manifestations. Throughout the history of Ohio, the spirit of the people of the Western Reserve, and of the entire state which became per-

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vaded with the same influence, has never forsaken that idealism without which a nation must surely perish.

Further south were the settlers from Virginia, bringing with them the creed of the great apostle of modern democracy, Thomas Jefferson, a creed which stands for personal liberty and freedom of thought, and which is in undying opposition to class privilege and the tyranny of might over right.

Nothing is more marked in the history of Ohio than the dominance of these two immortal schools of political thought. Under their influence the state has remained one of independent voters, casting their ballots from motives of the merits of the cause and not because of party affiliations. In the state and national elections of Ohio, the only forecast that can be reasonably made of the result is that it will almost inevitably be in favor of the party which presents the highest ideals and the most progressive policies.

Resources

Nature has bestowed material resources on Ohio with a lavish hand. The climate is, on the whole, well-ordered and dependable. The annual rainfall is usually abundant for all agricultural needs, and disastrous droughts are rare. While the annual range of temperature is very great, it is far less serious in relation to the crops than a similar annual variation in rainfall would be. On this account there are not the wide differences in production, which are the principal problems in the agriculture of the western plains. This is shown in the fairly even annual yield of corn, of all grains the one most sensitive to too much rain or the lack of it.

The topography of the state, notably in the northern part, along the shores of Lake Erie, is that of a great

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plain gently undulating on the whole and having very few elevations of any note, the highest being in the south and southeast as the Ohio River is approached.

Farms

Over 79 per cent of the total land is improved. The growing season covers from 120 to 180 days, and the long summer days give an abundance of sunshine.

The farms are comparatively small and offer opportunity for that intensive cultivation and larger production per acre which is the basis of all economical and efficient agriculture. The farmers of the state are noted for the care and intelligence of their work. Fields are tile-drained, and farms are generally well supplied with equipment and needed buildings.

Sheep on Farms

Ohio ranks fifth among the states in the number of live stock on farms, as its farmers early perceived that no farming can ever be efficient in the highest degree without a due proportion of live stock. It leads all the states east of the great grazing ranges of the West in the number of sheep on the farms, usually in small flocks. For its farmers show their discriminating intelligence and vision in their early perception of the fact that sheep were as essential to a farm as any other kind of live stock, and that only by this method of raising them could the problem of furnishing a sufficient supply of domestic wool be solved.

The recognition of this vital economic fact came at a time when the general impression, which in fact amounted to a conviction, prevailed in the farming communities of the East, Central West, and South, that sheep were essentially the product of a new and pioneer

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country, and that they could not be raised in competition with the great grazing ranges of the West, Australia, New Zealand, South Africa, and the Argentine. It was overlooked that in England, where land is high-priced and population dense, small flocks of sheep upon farms have been a notable feature of agriculture for many generations, experience having demonstrated that sheep were an economical and necessary by-product of extensive agriculture.

So the raising of sheep in Ohio upon small farms was typical of the mental attitude of its people, to whom custom and tradition were of small moment compared with the real facts of the situation, which could be ascertained and understood only by intelligent investigation and study.

Dairying

Because of the great number of cattle within its borders, Ohio has an extensive dairy industry. Nowadays the dairy business, in all its phases, is an affair of much complexity, and requires up-to-date knowledge to be successfully compassed. It has been almost completely transformed from the old ways and methods of the past, and the study of it constitutes one of the leading and most important courses at the state agricultural colleges of the country. It requires a knowledge of chemistry and animal husbandry, and dips down deeply into the intricate problems of sanitation, distribution, and salesmanship. The successful prosecution of the business depends not alone upon the economy and quality of production, but often equally as much upon intelligent advertising and general sales methods. In all this Ohio has been well to the front among the dairy-producing states.

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Varied Farming

Diversification is the distinguishing feature of agriculture in the Buckeye State. Not only are all the products of its latitude grown, but everything else that can be raised successfully in its soil and climate, as the farming communities are usually receptive to suggestions with regard to new products that come at all within the scope of their accomplishment. Tobacco is grown largely, and the production of alfalfa is increasing. There is still some flax produced even though its cultivation has been generally abandoned in the Central West. In common with Michigan, Ohio early essayed the cultivation of sugar beets which it is now producing in quantity. It is one of the largest producers in the country of garden truck of all kinds, and ranks high among its sister commonwealths as a grower of fruits and nuts.

Fruit-Growing

Now those who grow vegetables and fruits for commercial purposes must know many things which the producers of agricultural staples need not concern themselves with. They must be familiar with some phases of meteorology, so as to provide against certain weather contingencies. They must have a knowledge of chemistry and entomology, for only then can they hope to circumvent the ceaseless attacks of predatory insects. They must also know intimately all the complex processes of marketing and distribution, or else their carefully grown crops perish unsold on their hands. Successful commercial growers of garden truck and fruit are therefore men of intelligence and many parts.

The fruit-growers of Ohio belong to this class. By experience and observation they have discovered an interesting meteorological phenomenon which has enabled

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them to produce fruit successfully, notably peaches, in a latitude where the last spring frosts usually make such an undertaking a risky and uncertain performance. The great body of water in Lake Erie tempers the cold north winds blowing over Ohio and modifies the temperature for some distance south. The farmers have taken advantage of this to grow apples, peaches, and grapes in great quantities in the strip of land along the lake.

Manufactures

Equally diverse are the state's manufactures. It has much coal and natural gas, and also coal oil for fuel purposes. Through its lake ports it has cheap water transportation for bringing iron and copper ores from the great mines in the Lake Superior country. It has limestone and sandstone for building purposes. It has large deposits of clay, and is the leading state in the manufacture of products of this material. It is only natural, then, that its manufactures should be vast and varied.

The list of the things Ohio manufactures is as long as a Chinese play. Of the 353 classifications of manufactures given in the United States census, 291 were represented in Ohio in 1914. Of the great number of cities in the state, every one is the seat of some forms of manufacture. Many of these manufactures, after the fashion displayed in New England, flock together in one or more places. Thus we have the iron and steel products concentrated in Cleveland and Youngstown; rubber goods, clay products, and pottery in Akron; automobiles in Toledo and Cleveland; and foundry and machine-shop products in Canton and Dayton. Many of the products have world-wide reputation for their merit and excellence, as for instance the pottery products. This

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wide-spread and vast manufacturing industry is principally responsible for the phenomenal increase in the past decade in the population of many of the cities.

The output of lumber and timber products is remarkable in a state so thickly settled and so closely cultivated. For Ohio has still standing a great acreage of hardwoods of the finest quality—oak, maple, hickory, poplar, walnut, and ash.

Transportation

The topography of the state lends itself readily to the maintenance of numerous systems of transportation which form a network over the state. Not only is there a considerable mileage of steam railway in every county, connecting and criss-crossing, but there are also electric and interurban lines which furnish constant and economical transportation for freight and passengers. Electric lines in especial have served as builders and feeders for many of the large cities by increasing the scope and volume of their distribution of commodities to the surrounding country, and by adding to the possibilities of suburban life with cheap and rapid transit to the business districts of the large cities.

The interurban electric lines make possible the extension of the trade of the large distributing center by the ease and quickness with which it can send its products to the neighboring country, and by the facility with which the people of the near-by small towns can shop there and take advantage of the great variety of goods it offers. The attractive and refreshing life in the suburban towns is also made possible for city workers by the quick and certain transportation the lines offer from the noisy, busy mart to the quiet, restful home. Then, too, the freight service they furnish within certain dis-

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tance limits is doing much to solve the transportation problems of an overburdened and inadequately equipped steam railroad system.

Canals and Roads

Added to all these means of transportation are the waterways. To the north is Lake Erie, giving an outlet eastward through the Erie Canal to the seaboard, and westward through the Detroit River and the Upper Lakes to the northwestern states and western Canada. There is the Ohio River on the south, leading east to Pennsylvania and south and west to all the Mississippi Valley. Nor must the canals from Cleveland to Portsmouth and Toledo and Cincinnati be forgotten, linking as they do the two great waterways of the state.

Moreover, the state has an abundance of good roads, and has of late shown the greatest increase of any state in the Union in the number of highways of hard and enduring surface. As a natural corollary of this, the number of automobiles increased 500 per cent from 1913 to 1918, and there is now one automobile for every twelve persons.

Education

In the vital matter of education, the story of the state is of especial interest, not only because of the vast appropriations made by the legislature, but also because of the great number of schools, colleges, and universities, which have an enrollment of nearly 1,000,000 scholars in a population of 5,500,000. From the earliest beginnings, education has been a matter of general and wide-spread interest in Ohio, so that the percentage of illiteracy is now very low despite the vast horde of foreigners who have been attracted to the mills and mines.

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It was early apparent that the first settlers of the Western Reserve brought with them that love of education and high estimate of its value which distinguished their fathers in Connecticut. For there was an abiding conviction in them, to which later days have given convincing proof, that a democratic form of government cannot long endure without universal education and intelligence among its people. Nor did the impulse towards education stop with the public schools, but went onward to the higher forms, which in Ohio assumed largely the shape of small colleges. The Puritan intellect, if anything, was disputatious, and wished to be very sure of the form as well as the nature of its beliefs, notwithstanding that it existed as a living protest against formality and ecclesiasticism. Despite its scorn and aversion of rites and ceremonies, it demanded that all things be done soberly, advisedly, and in the fear of the Lord. To the Puritan mind it was essential that doctrines be sound, and that the expression of them be along simple, severe, but rigid lines.

Small Colleges

Inevitably, then, the small college appealed to them because of its natural incentive to study and the personal influence of the teacher upon the student. The religious training and influence which was sought to incorporate in the curriculum of the small college was rather a matter of exposition and argument than of conversion and proselytism. So in later days, even the denominational phase of education in the small college has become merely perfunctory or else has fallen into entire disuse.

But it served well its purpose. For in the times of great national stress, when problems of supreme and infinite moment rent the country asunder, the fiery cross

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went forth from the small colleges, and section answered unto section, and county unto county, throughout the state, and they rallied as one man, as they have always done, to the support of those principles which lie so deeply imbedded in their consciousness. For there were giants in those days in education as in every other phase of life. Men of dauntless courage, of far-flung vision, of an understanding that comprehends all the essential matters in human life. They were the types that come only in the early and elemental period of a nation's life, before people are encumbered with all the fripperies and follies, the doubts and despairs, the subtleties and refinements of modern civilization. They are as impossible in our day as the recrudescence of a Shakespeare, a Homer, a Beethoven, an Isaiah, or a Washington.

State Universities

Meanwhile there arose through the spirit of the Virginia settlers the desire for that last word in the higher forms of democratic education, the state university, which was the conception of Thomas Jefferson, as expressed in the founding of the University of Virginia, the forerunner among the great institutions of its kind. Ohio has institutions of higher education to which the state contributes. In the number of colleges and universities, Ohio is second in the entire country, being surpassed only by Pennsylvania. It was significant of the progressiveness of the people of the state that they were among the earliest in the country to adopt co-education in their colleges and universities. For they no longer subscribed to the cave men theory, prevalent in the "good old days" of our forebears, that the cook book and the Bible were sufficient reading for the "weaker vessels."

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Rural Schools

During the past decade the people of Ohio have grappled with and mastered a problem which has confronted every one of the 48 states, the rural public school system. A complete survey was made of the entire state, and, unlike most state and federal surveys, it was not forgotten and allowed to die of dry rot. Something very definite and constructive followed from it. What was disclosed by the survey was something that has been more or less common to most of the states. The teachers were poorly trained; the method of instruction was archaic; and the equipment for the schools was inadequate, especially in the ways of health and sanitation.

A thorough reformation followed the investigation. Wherever possible, schools were consolidated. The standard of instruction and of study were appreciably improved, and the children were surrounded with every form of comfort, convenience, and sanitation. In course of time the school became to them a center of social and intellectual life. A spirit was created among them which caused their activities and interests to cluster around the school as the Alma Mater of their early days. In many of the counties the high school attendance increased from 1914 to 1919 from 50 per cent to as high as 100 per cent.

City Government

One very practical phase which education has assumed in Ohio is the development of a high civic sense among its inhabitants for the purpose of resisting all attempts at political exploitation. Just why we have national political parties as the dominating forces in our city government life is a dark and inscrutable mystery

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to all save the ward politicians and professional office-seekers, who make their living thereby. Some of the Ohio cities have had the courage to break the bonds of their political slavery by adopting the city manager's form of government.

The city of Dayton set this new fashion, because of an overwhelming trouble which threatened her life and standing as a prosperous and enterprising town. It is not an uncommon happening in this country for a terrible calamity to a city to be the real source of an undreamed-of splendid future instead of the great and overpowering misfortune which seemed so imminent at first. It was so in the great fires which almost completely destroyed Chicago and San Francisco. Such misfortunes seem to arouse all the energy and fighting qualities of the people and to incite them to the utmost effort. So Dayton, recovering from a disastrous flood, evolved a new and businesslike method in her civic life. It was simplicity itself. A city manager was chosen to manage a great corporation, the city itself, on business and not political lines.

In another direction Cleveland set the pace for American municipalities, whose governments have too often been notorious for corruption and inefficiency both at home and abroad. For many years this city, rich and prosperous, had that evil, common to many American cities, of a house divided against itself, two classes misunderstanding and fighting each other. Out of this welter of conflict and internecine strife there finally was born a civic pride and a civic consciousness which strove for the welfare of the city and its many people, along modern constructive ways. So Cleveland has apparently solved the problem which still plagues and perplexes less progressive municipalities.

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Independence of Thought

We thus come again to the final query as to the nature and mental attitude of the people of a state where every industry flourishes, where resources are having their fullest development, and where wealth and prosperity seem native and to the manner born. People of many industries are usually as diverse and many-sided as their employments. To this breadth of vision, bred not so much by physical environment as by the variety of the work by which they earn their daily bread, the people of Ohio have added a singular independence and initiative of thought which is a legacy handed down from the sturdy pioneers who made the state and whose characteristics are even now determining its future.

These traits are shown in the wide-spread maintenance of every species of communication; in the immense variety of manufactures; in the diversification of agriculture and the eager welcome extended to new plants and new methods of cultivation; in the abiding interest in education as the prime factor in democratic life; in a freedom from political bias, as evidenced in changing the political complexion of its legislatures and its rulers whenever the welfare of the state so demands; in the exquisitely discriminating intelligence shown in the popular voting on constitutional amendments which are carefully selected or rejected according to their worth; in the adoption of the latest and most approved methods of government; in the general good taste and judgment displayed by dealers and consumers in the large demand for articles of the highest merit and worth, and the comparatively small call for cheap commodities, without regard to their lack of merit; and, most of all, in the preservation of ideals that neither time nor traditions, nor ease, nor prosperity, have been able to displace.

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There is always political independence of thought and action. There is honest discussion and trial of new social and economic theories, in a manner devoid of fanaticism or undue prejudice, and with an eye solely to the results.

What with the overwhelming riches of the state and the trend of thought among its people pointing steadily to increasing intelligence and discriminating progressiveness, there can be only one answer to one question—Ohio that is an inexhaustible field for increasing business of the highest type.

Contrasts of Civilization

Ohio, in fact, presents an interesting example of the wide difference that exists between the civilization of this country and the civilizations of the old world, where, as in France for example, the ancient inheritance and tradition rest to a large extent as a burden on enterprise and progressiveness. In the beginning, Ohio also had a history and a tradition which in the natural order of things tended to still her enterprise and prevent the free and natural expression of her vigorous and individual originality. But the people of the state broke away from the things of the past which stood in the way of progress, and wrought for themselves new methods and new ways in accordance with their natural and abiding spirit of advancement and enterprise, and the pioneer spirit of individuality has come down to them untrammeled and untouched, although it has perforce sought modern forms of expression.

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TEXAS

Impartial Study

An essential of impartial and unprejudiced study of any state is that the observer go to the scene with a mind not only receptive to new impressions, but likewise free from preconceived opinions so far as such a mental attitude is humanly possible. Otherwise there will be a tendency, often unconscious, to color and fit facts to the conformation of some theory, instead of following the true procedure of acquiring facts first and deducing the theory afterwards. This is a danger of which every experienced observer is acutely aware.

First-Hand Observation

Paradoxically enough, the surest way to avoid such pitfalls is not to know too much about the place you visit. If it were possible, indeed, it would be better to know nothing whatever in advance about the state you are to study, but to acquire all your knowledge during the course of your survey. As this is not practicable, the next best thing is to limit your knowledge to some elemental points regarding the history, geography, and climate of the land you are to study. You will not then go through the often painful process of readjusting practically all the opinions you formed in advance. The right way beyond question is to start with the study of the phenomena themselves and not with ideas gathered second-hand from books or from other travelers. The best report is a poor substitute for first-hand study and observation. Moreover, no statistics or figures can give you

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even an approach to a true conception of any great fact. This is why mere statisticians are such unsafe and unreliable guides, because they are usually unacquainted with the facts which produced the statistics.

A Vital Truth

Of all the 48 states none more warrants the wisdom of "unpreparedness," as just indicated, than the state of Texas. The numerous stories concerning it, many of them humorous jibes, convey an unfavorable impression which it is hard to resist when you do not know the country from personal observation. Moreover, these impressions are apt to be confirmed by those casual travelers who have seen certain portions of Texas underpassing unfavorable conditions of weather or circumstance, which they conclude to be permanently characteristic of the state and its people. This is one of the vital truths which every observer has to learn if he is ever to be worthy of his job: that peoples, climate, and all economic and social phenomena are seldom what they seem on first acquaintance. The true situation reveals itself only upon closer study, and the modifications and amendments which develop in the course of the study alter fundamentally even if they do not dissipate first conclusions.

Sympathetic Viewpoint

This is particularly true of all communities of direct and elemental culture, such as North Carolina, Kansas, and Texas, whose people are not concerned about impressing travelers by being other than natural, and whose vivid state pride takes for granted that the state and its qualifications speak for themselves in no uncertain tones. Only by being perceptive of such hidden truths

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can the observer perceive the deep underlying facts of the situation. There is no such thing as real enjoyment of a great football game between two college teams unless your sympathies are so wrapped up in one of the teams that its success or defeat is almost a matter of life and death with you. Unless you feel about it as does the undergraduate, it is a mere spectacle and not two hours of delicious agony. By the same token, the understanding of the spirit of the people of any state comes only from comprehension and sympathy with their point of view, so that you join in the feeling of state pride because you understand the forces which give it birth.

True Idealism

Every state has certain vital factors which largely influence its development. It may be the innate common sense and idealism of Kansas, or the trained open-mindedness of Wisconsin, or the rugged individualism of North Carolina. The real problem for the observer is to discover these compelling characteristics so that they may disentangle for him the otherwise baffling skein of the state and its history.

The people of Texas have none of those encumbrances of the past which make so strongly for moss-covered conservatism, lack of initiative, and the blighting of true idealism. We are prone to think of ideals as being the creation of tradition and inheritance, when in truth such ideals are mere lifeless legends which seek to perpetuate antiquated methods of thought and action in an age to which they are unfitted and in which they are utterly out of place. Not only is it true that the newer regions of our own country, Canada, and Australia are those where true ideals of progress and genuine democracy find their most fitting home and abiding place,

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but even in composite America the newer states set the pace in matters of initiative and progress.

Composite State

The early life of Texas was that of pioneer Americans fighting for life not only against the savage wild beasts and the equally savage Indian, but against an even worse foe, the Mexican oppressor. The red-blooded fighting man was a concrete and every-day existence and not a mere figure of speech. The story of the Alamo was the story of Texas grit and courage. Texas is the only one of the states that had existence—for about a decade—as a free and independent republic.

The people came from everywhere, though largely from the South. But the leaven of environment was not to be denied, and it is today the only distinctly composite western-southern state in the Union. The people, although composite like the state, differ somewhat according to the section of the state in which they dwell. The inhabitants of the wooded sections of the east and southeast are much like the people of northern Louisiana and southern Arkansas, while the dwellers in northern and central Texas are more western and less southern. In the south central section and southeast to the Rio Grande there is still another type, easy to recognize but difficult to describe. The west Texan is *sui generis*—very western—just a trifle tinged with the southern flavor, but mostly just Texan.

Pioneer Spirit

Agriculture was and is the principal industry. Free from the influence of great cities and congested manufacturing centers, there has been preserved that pioneer spirit which gave Texas its birth as a free and inde-

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pendent country. This American spirit found expression in the live-stock production which has always been one of the great industries of Texas. The earlier times—the "free grass" period, when fenced-in ranches and barbed wire enclosures were unknown—were the days of the romance of the cowboys. They were hard riders and brave men—rough but manly—whose life lay always close to nature on the vast sweeping prairies. Their code of ethics, simple but effective, had place only for the obvious manly virtues of courage and endurance, with scant allowance for dishonesty and cowardice in any form. They had likewise that abiding sense of justice so inherent in the elemental man.

Granger Movement

This same independent spirit found later expression in the granger movement which swept over the state from 1873 to 1895, an effort on the part of the farmers to try conclusions with certain economic laws which seemed to them unjust and oppressive. There resulted much legislation against the "predatory plutocrat" and much regulation of railroads, some of it hostile rather than reformatory because of practices of exploitation not unknown in those days. The things which were merely hostile, however, have passed away, while needed regulations remained for the general good.

As time went on, the feeling against the railroads and against the power of wealth gave way to the realization that an essential for the development of the state was the use of outside capital under regulation that gave it protection and yet curbed excesses. For there was a state pride that took into account the possibilities of the many native opportunities of the land.

In later years this same spirit of independent thought

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and action took a more constructive direction. The commission form of government in cities is a salient example. Commission government originated in Galveston in 1900, after the flood which almost destroyed the city, and was an entire departure from all previous forms of municipal rule.

Varied Topography

Texas is a country of great variety, and of differences so marked as to suggest the inclusion of several states within its wide borders. In the east and the southeast is the forested area, mostly plain, and much like the neighboring regions of southern Arkansas and northern Louisiana. There is some rough country in the southern central portion and again westward along the Rio Grande until genuine mountains are reached in the extreme southwest. There is much mesquit growth trending northwesterly into chaparral thickets. Elsewhere the country is a great plain, sloping upward from the Rio Grande and coastal plains to the upland prairies of west Texas and the Panhandle, the latter being the Llano Estacado, or Staked Plains of our boyhood maps. The state has some natural boundaries, the Red River on the north and the Sabine on the east, as well as the Rio Grande on the south—its tortuous course of over 1,100 miles marking the Mexican line. In the main, however, it is a man-made state, rather than a geographical entity.

Broad Extent

The things which most impress you in your travels are its enormous size and the endless sweep of its plains. It is the largest state in the Union, some 265,000 square miles in area. It is six times as large as Pennsylvania,

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larger than all the Atlantic States from Maine to Virginia inclusive, while all the former German Empire could have been accommodated within its borders. From northeast to southwest or from northwest to southeast is as long a railroad trip as from St. Louis to Boston. The whole thought of the Texan is imbued with the bigness of his state, and is reflected in his ambition for her accomplishment and the great things he confidently expects of her future.

There are strong contrasts of forest and plain, of fertile land and desert. Yet there is much that on first acquaintance strikes you as being monotonous. You go for hundreds of miles over endless wind-swept plains before you feel their charm and begin to understand their effect upon the people who dwell upon them. Then there grows upon you a feeling of the depth and remoteness of space, and the plains imbue you with that sense of freedom—mental and physical—which you experience on the boundless ocean.

Precipitation

The climate is one of the paradoxes of the country. Like that of all the states of the great plains, it is a force to be reckoned with in the days of its wrath. The annual rainfall in the eastern portion averages about 55 inches annually, but decreases progressively westward and southward until in the extreme southwest it falls to 5 inches, or the condition of the hopeless desert. The rainfall is most uncertain, because the areas of barometric low pressure—or "lows"—which are the rain producers and which form east of the Sierras, usually skirt only the upper portions of the Panhandle in their eastward flight. Moreover, many of the "lows" which form in the Pacific lose most of their moisture in cross-

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ing the Sierras and the Rockies. So that the "lows" which bring rains to Texas usually originate in the extreme southwest, or else come down from the northwest under the pressure of some great "high" behind them. Hence the rainfall is an uncertain quantity, not only by years but by seasons.

Hurricanes

At times, sometimes at long intervals, the state is visited by a West Indian hurricane which is always accompanied by a deluge of rain and which leaves ruin in its track. Its appearance in Texas is the result of a curious meteorological phenomenon. The West Indian hurricanes come up from the Caribbean Sea in a northwesterly direction until they reach the Florida Peninsula, when they usually rebound and go northeast along the Atlantic Coast. At times, however, the North Atlantic is covered by a bank of "high pressure," which deflects the hurricane westward across the Gulf and well into Texas, when it turns northeast and follows the usual track of the southwest "lows" across the continent. One of these hurricanes completely destroyed the city of Indianola on the Texas coast. Another nearly destroyed Galveston in 1900, and another in recent years inflicted great damage upon Corpus Christi.

Cotton and Grain

The story of agriculture in Texas, as elsewhere, is largely the story of the weather. In common with all the states of the great plains, the dry years flock together in groups, and the wet years similarly. Winter is usually the driest season, while the wet springs, followed by dry summers, which prevail over central Texas, make that region peculiarly favorable for raising cotton.

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The snows of winter in the Panhandle have helped to make that northern part of the state a great wheat-growing region. A favorable spring means a large yield, as wheat is harvested before the great heats of summer. Throughout the state, planting is early in order that crops may mature before the hot dry summer is at its height.

Cotton and corn demand entirely different weather in the summer for favorable yields. Cotton needs a moderately wet May and comparatively dry June and July. This latter requirement has been much accentuated since the appearance of the boll weevil which thrives best in wet weather—a wet June and July indeed means such a pest of these insects as will practically destroy the cotton crop. Corn, on the contrary, requires a sufficiency of rain in June and July, especially at the critical stage of tasseling. So it comes about that a large crop of cotton and a large crop of corn rarely occur in the same year.

Weather Contrasts

The droughts, which will always be in a portion of the state, except in the eastern portion, constitute the difficulty in the life of the people, agricultural, economic, and domestic. In some portions of western and southern Texas these droughts seem endless, lasting in some cases for two or three years. They are destructive of vegetable life and animal life, completely ruining the crops and causing untold losses among the herds on the great grazing ranges. In some sections of West Texas, in the long and bitter drought just prior to 1919, all the domestic animals on the farms perished, for there was neither food nor water to be had for them, and even wild animals, coyotes and jack rabbits completely deserted

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these regions. Yet twelve months later, after a season of almost ceaseless rain, the entire plains were a vast carpet of green, alive with herds and animal life, and also with passing wild fowl on all the numerous small lakes.

So familiar are these startling and unexpected contrasts of weather that the average Texan has a plentiful lack of faith in the accuracy and dependability of any long-distance weather forecasts. His view is mistaken, however. An intelligent study of the weather records indicates very definitely that the weather in Texas closely reproduces the meteorological phenomena of all the great plains, only in a somewhat more accentuated form, and that it is entirely possible to make long-distance weather forecasts with such approximate accuracy as to be of material assistance to agriculture and commercial life in ordering their actions.

Winds

Texas is a land of sunshine, which adds much to the potentiality of growing crops, but likewise to the natural dryness of the land. The ceaseless winds increase the dryness, although they do much to promote the health of the people. Indirectly, the winds do much to temper the summer heats; the nights, especially, are cool. Sun strokes, by the way, are practically unknown in Texas. The spring and fall are everywhere delightful, and so are the winters, especially in the southern portion. There are, however, sudden cold winds in the winter, "northers," which bring with them precipitous drops in temperature, and which have a frigidity out of all proportion to the temperatures they bring. They have an unobstructed sweep from the far-away Rockies and across the long stretching plains.

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Irrigation

There is underground water in most of the west and south of the state, and it is pumped for moderate irrigation by endless windmills. Especially is this true of the Panhandle, where there is an unending procession of windmills. On every grazing range, however arid, they make a green oasis round the dwelling. There is much irrigation in scattered sections—along the Pecos, the Concho, and the Colorado Rivers in the southwest, the San Saba River and the great Medina Dam in the south, the Sabine River in the east, and the Rio Grande in the southeast. Altogether there are about 5,000,000 acres potentially irrigable, mostly from streams, although many sections are supplied with artesian wells. The Brownsville and Rio Grande irrigated fields are of comparatively recent date, and are devoted to truck gardening, which has had a checkered existence because of the difficulties and expense in distributing to distant markets.

Farming

Texas has the greatest number of farms and of farm acres of any of the states, and about 24 per cent of the farms are improved. It usually leads the states, or else is near the top, in the value of farm property and farm products. It raises most of the products of the temperate zones and many of those of the sub-tropical. Sugar cane production in the Rio Grande district approximates more nearly than elsewhere in this country to the climate possibilities of the West India Islands. The state is a heavy shipper of watermelons and peaches, and also of onions, cabbages, and tomatoes.

Owing to the comparative lack of mountains, and of forests, save in the east, most of the land is available either for agriculture or live stock. There are also about

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1,500,000 acres of swamps on the southeast coast, which can be drained. The west and southwest have the most extensive cattle ranges in the Union, where are found about one-tenth of all the cattle in the country, many more goats—mohair—than in any other state, and great numbers of sheep and hogs. In times of drought, sheep and goats pull through when cattle succumb to the lack of food and water.

Old Delusion

In the west and southwest are the debatable lands, where the land is used for agriculture or for grazing according as the season is wet or dry. In the years when rainfall fails and not even dry farming can produce crops, the tide of disappointed "home seekers" ebbs eastward, and cattle graze upon the abandoned fields. When the rains come again in their relentless cycle, the army of farmers once more invade the ranges and settle down to agriculture, forgetful of all the years of past failures, and comforting themselves with that age-old delusion that the climate is changing and this time for good. This human comedy—or tragedy—repeats itself, generation after generation, but the tide of farmland rises a little higher each time and does not recede as far as in the preceding ebbing. Slowly man gets a firm grip upon the desert, and outstays and often outguesses nature.

There is increasing production of drought-resisting plants—kafir corn, milo maize and Sudan grass. There are more sunken wells for moderate irrigation for live-stock feed. But beyond the western edge of the conflict there is still the desert which can never be brought under agriculture and which for all time will serve only the purpose of cattle grazing. Texas was primarily a cattle country with live stock as its greatest industry.

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Cotton Production

As the state was first settled principally by southern planters, cotton became the leading and almost the one crop. The land is peculiarly fitted for this plant because of the spring which usually is sufficiently moist, and the dry summers which follow. There is much fertile soil, especially in the "black lands" of the norther section, and in the alluvial deposits along the river bottoms. So in time the state produced from 25 to 30 per cent of all the cotton grown in the country, and looked forward to the day when it would grow enough for all the domestic needs of the entire Union. Then came the boll weevil, the consequent bitter disappointment—almost despair—and the slow recovery through the ways of diversification. The boll weevil is still there, but the fear of it is largely gone, and the old dream of Texas as the great cotton-producing section of the country and of all the world has returned in full force.

Varied Crops

Diversification, however, has come to stay, for early in the fight against the boll weevil the numerous organizations of growers of all products met with the federal Department of Agriculture and the State Agricultural College to plan an intelligent campaign of diversification and of cultural methods of conflict with the insect enemy. So Texas is growing more grain and foodstuff. In 1919 she was the third state in the production of corn. She is growing peanuts in great quantities and erecting mills to extract their oil. She is raising rice, alfalfa, soy beans, and small grains, often above her own needs.

Equally has the lesson of intelligence been carried into cattle raising. Better breeds have been produced, Hereford and Angus replacing the old long-horns which

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are now almost extinct. The blooded beef cattle have justified their existence by being as good "rustlers" as the scrub long-horn and far better meat animals.

Lumbering

Texas stands high among the states in lumber production—the principal forests being in the east and in the mesquit thickets of south Texas. Cypress, tupelo, palmetto, and hickory are found in the swamps and lowlands of the east and southeast, and oaks, gum, sycamore, and much yellow pine on the higher lands and prairies. There is an intelligent attempt to establish a forestry policy not only for retention and replacement, but likewise to inaugurate tree planting upon the endless sweeping plains.

Manufacturing

Originally there was no reason for manufacturing on any large scale, since raw material, other than lumber and live stock, was largely absent. There were, however, mills for cotton, cottonseed, and rice; there were numerous lumber mills and establishments for finishing building stones; and packing-house plants. Moreover, the northern section of the state became a great center of saddlery and harness-making, and there have followed many miscellaneous manufacturing activities. There are flour mills for grinding the home-grown wheat, while naval stores are among the important productions.

Oil

Mineral deposits are not very plentiful on the whole, though there is some iron ore in east and central Texas, some sulphur, some little silver, and much quicksilver. There is also some coal and lignite for fuel.

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Of late years the wonderful discoveries of coal oil have solved the fuel problem and added enormously to the wealth and productive capacity of the state. It has been known for over fifty years that there was oil in Texas, and not so many years ago the great flowing wells in the southeast—the Sour Lake and Beaumont and Spindle Top districts—were the wonders of their time. They are still large producers, but within the past decade and especially the last five years the scene of activity and production has shifted to the northern and western portion of the state. The greatest oil-producing field in the world today, and one whose productivity grows steadily as new "pools" are found and new wells drilled, is an area in north central and west Texas embraced in a rectangle about 200 miles east and west, and 270 miles north and south, lying directly west of Fort Worth.

Altogether the various oil fields of Texas are at this writing producing about 300,000 barrels of oil daily and the output grows steadily. There is also much natural gas with the oil, and consequently another valuable and efficient fuel is added to the possibilities of industrial life.

Fuel Consumption

The illuminating value of coal oil is fast waning because of the superior cleanliness and efficiency of natural gas and electricity. This too despite the cheapness of kerosene, as the illuminating oil is often called. But the fuel uses of coal oil, superior in many cases to coal, are only now being recognized. The problem today is where and how to obtain sufficient oil to meet the steadily growing demand for fuel and other purposes. Yet from the days of the great Pennsylvania strikes in the '60's, there has never been a time when the demand was not

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balanced by the discovery of a new source of supply. In fact, the only workable theory of the uninterrupted continuance of industrial life, because of its ever-growing demands for fuel and raw material, is the answer of experience that something will always turn up in the nick of time.

Oil Boom

It was a trying period for west Texas only a few years ago when the first discoveries in the oil field were made. The entire western section of the state was in distress and almost in despair. Almost three years of unending drought accompanied by fierce heats had destroyed all vegetable life, burned up the crops, wiped out vast herds of live stock, and thoroughly discouraged the people. All who could get away trekked east and north, for they had hung on by their eyelids till all hope of a crop and of rain had been abandoned.

Then came the great and astounding discoveries of oil, and the Dead Sea ashes of disappointment turned into the realization of sudden and incredible wealth. Wherever oil was, there likewise was a riot of prosperity and of spending. Aladdin's lamp and its sudden creations were small matters by comparison. Men grew enormously rich overnight when the drills struck oil. Speculation was rife. Burnt-up acres that previously could not be given away brought fabulous prices for leases for oil possibilities. Moreover, drilling and prospecting mean much expenditure and the demand for many commodities. The thousands who flocked to the new Eldorado needed food and raiment and a place to lay their heads. Business of every sort was very good. Little hamlets of a few hundred people grew in a twelvemonth to cities of 25,000 inhabitants.

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Pioneer Settlements

It is a curious and interesting fact that oil and gold-mining crazes seem often to bring out suddenly in men a reversion to original type. All the veneer of civilization drops away—as in war—and leaves only the elemental man. He is not so far different from the civilized man, but his real traits are no longer concealed. Possibly the dearth of women in the first rough settlements has much to do with it, for the nature and ways of woman are ever the best gauge of our economic and social life.

Often, however, these findings of sudden wealth underground are merely the prelude to the development of other things more permanent and enduring. It was so in California and in Alaska, and it seems a safe forecast that it will be so in Texas, except in the rare desert sections where nothing but stock grazing seems possible as a permanent business, until water in sufficient quantity is found near-by.

Agricultural Improvements

In the matter of education, Texas is far to the front in the amount of money spent upon her children. For there has been wide-spread growth in the sentiment for more and better schools in the past score of years. The State University and the Agricultural and Mechanical College are missionaries of higher and more general education.

Teaching the methods of intelligent agriculture is peculiarly fitting in a country where climatic problems are so perplexing and formidable. And the results of such teaching manifest themselves in the steadily growing cultivation, in that wide-spread region where the rainfall is scanty, of drought-resisting plants—kafir corn, milo maize, feterita, Sudan grass—which hold on grimly

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through days of rainless heat, when Indian corn withers and dies.

Much thought and study have been given also by the farmers to the larger problems of production and distribution of agricultural products—and particularly to the possibilities of co-operative societies. The native independence of Texas spirit did not at first take kindly to working in double harness with the other fellow. But there was no other way out, and today these organizations are marketing products with a dispatch and an economy far beyond the powers and possibilities of the average individual grower.

Education

Throughout the state there is a fast increasing understanding and appreciation of that more intangible but equally vital form of education in which to the study of material things is added the cultivation of a trained and disciplined mind. The best sign is the general dissatisfaction with things as they are in educational matters and the burning desire for things as they should be. There is a demand for better rural school facilities—more complete equipment; larger pay that shall command more efficient teachers; and longer school terms. The story of education in Texas is the recital not merely of wide-spread and growing interest but also of willingness to pay the price. The percentage of illiteracy is not large, and such as exists is due principally to the presence of many adult Mexicans and negroes, for the children of both races take kindly and readily to the three R's.

Local Spirit

The dominant and pronounced factor in the development of the state is easily seen to be a state pride which

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has been always in evidence in every stage of the history of the commonwealth. To one who knows Texas the manifestations of this state pride are unmistakable, yet it is just here that the superficial observer, or he who comes with preconceived opinions, is most liable to go entirely wrong. Such an observer questions both the fact and the basis of any such wide-spread local spirit, especially if he visits the state in some of her unfavorable and unprepossessing moods—in the days, perhaps, of summer heats and prolonged drought, or when the plague of insects is great, or when crops have failed and the farming and mercantile interests seem alike close to the ragged edge of disaster, and the disillusioned home-seeker has turned his weary face eastward from the land of his bitter disappointment. Or the stranger may marvel that the dwellers on the endless plains do not become deathly weary of the ever-receding horizon and the winds that cease not day nor night. Or he may pityingly wonder at the lonely existence on the remote ranch in the arid lands where the only green spot in the blistering sun is the ranch grounds by the driven well. State pride, he reasons, built on such foundations must be either blind infatuation, or else the spirit which whistles to keep up its courage.

Territorial Vastness

But the observer who looks into the heart of things with the sympathy that illuminates and comprehends the realities of human life finds plenty of basis for the Texan's love of his state. For one thing there is the charm of the desert, a charm as old as human nature, and still as compelling as in the days when the first Ishmaelite went out from the home of his fathers to dwell in the waste of rocks and sand. To many a man today,

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as in every age of the past, the city is merely a stifling place of conventionality and artifice, of mannikins parading in the guise of human beings.

There is the realizing sense of the vastness of the wind-swept prairies, and of mental freedom and far-flung vision that cannot brook material bounds. From the beginning the sense of the size and vastness of the state fired the imagination of the people as to the future of their commonwealth. The magnitude of natural phenomena and natural scenery impress us far more than their beauty—that is why we expect great achievements from great countries rather than from smaller ones. The image of the union of far-flung states stretching from the Atlantic to the Pacific, or that other image of the possessions of England on which the sun never sets, carries with it the imagination of great characteristics. This feeling lies at the bottom of Texas state pride. There goes along with it the pride of independence and the conscious strength that is captain of its soul, and sufficient unto itself.

Spirit of Democracy

The spirit of the Texans is essentially the spirit of democracy. In the past, as peculiarly an agricultural people, out of close touch with modern industrialism, they took umbrage at some of the ways of railroads and industrial corporations, and their feeling against privilege and power expressed itself in vehement denunciation and in legislative enactments which were sometimes fantastic in intent and method. This suspicion of industrial life passed away as the population grew, and isolated communities were brought into closer touch with the remainder of the state through easier communication. But the spirit of democracy has remained.

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There is still strong, besides, in the people of the state the spirit of combat which from the beginning fought for its existence—against ignorant and tyrannical Mexico, and always against the vicissitudes of a climate that at times is hostile and destroying.

So there has evolved a rough and ready democracy. For the people of Texas are a wholesome and husky lot. They are strong in their likes and dislikes, as are all elemental natures. They are equally sure of themselves and their future. And of this future, economic and social, there can be no doubt. For out of the turmoil of the past they have emerged with an abiding determined purpose, and have set their faces like flint in the ways of advancement and progress.

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COLORADO

An Americanization of the World

Prior to the Great War there was a much exploited theory as to the wisdom of the Old World's peoples, because of the vast ages of history and experience which have been their portion. To those who held this theory, the ideas, hopes, and aspirations of the New Worlds, the two Americas and Australia, were as the mere day dreams of children. Yet it became evident to close observers even before the war, that there was in progress an Americanization of the world, and that in fact the only escape from degeneracy and destruction for most of the civilizations of the Old World lay in casting aside utterly the burdens of traditional ways of thought, and aligning themselves with the ideas, hopes, and beliefs of the earnest and robust democracies of the New Worlds.

"Wisdom of the Ages"

The Great War dealt the final blow to that delusion of the greater wisdom of older nations. It taught us, what many on this side of the water had long held, that in economic life much of Europe's vaunted superior knowledge was an empty tradition. When financial stress came the "sacred beliefs" were idols with feet of clay. And to no one was this more apparent than to that hard-headed, common-sense American "doughboy," who saw the Old World with her naked soul stripped bare in the depth of her tribulation.

We could have known all this years ago by the mere exercise of intelligent inductive analogy, for nations are

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like human beings, and in both there is a period beyond which the wisdom and experience of age loses all its potency and becomes mere obstruction. The "wisdom of the ages" has overstayed its time. It has reached that stage when the ceaseless conflict and struggle for existence, which is the inalienable portion of humanity, has caused it to lose all hope and sink into the apathy of profound despair. Its state of mind is well exemplified by our current phrase, "What's the use?" Why should humanity forever struggle against relentless fate, which is no respecter of persons and takes tragic delight in confounding all our plans, and frustrating all our hopes and ambitions? Why should we add to the tragedy of life by striving for those impossible things which only turn to the Dead Sea apples of dust and ashes and disappointment in our mouths?

Under such conditions and with such a point of view, life dwindles to mere struggle for existence, with such passing pleasure as circumstances may permit. In nations as in individuals, the spirit of initiative, of unwillingness to accept unquestioned the decrees of fate, and of determination to try conclusions with all the hostile forces of nature, must be sought in the imagination and courage of youth and not in the wisdom and apathy of old age.

Basis of Well-Being

The American spirit, as exemplified in the history of the different states, is the antithesis of this antiquated thought. Through long struggle for our place in the sun, first with savage Indians and wild beasts, and later with all the hostile forces of nature, there was developed that spirit of initiative and enterprise, because of the incentive of opportunity for intelligent self-interest,

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which seeks to test all opportunity to the uttermost. It has inherently and primarily been an economic development, so that we have utterly set aside that Old World snobbery of the lesser importance in social and political life of the "tradesman," as compared with the man of aristocratic lineage. For in these latter days we have demonstrated the wide embracing importance of economic life, in that it is the basis of all else in our national well-being. But we have learned that economic progress depends ultimately upon the spread of education and intelligence and upon the general welfare of the many. Paradoxically enough, it remained for one form of this American spirit to display its greatest difference with the old world trend of thought in the story of the mountain states, of which Colorado is a fitting type.

Mountaineers

Mountain populations in all parts of the world have been essentially conservative in thought and custom, and strongly imbued with the ways and modes of the past. They have been often the descendants of original peoples or tribes who were forced from the plains to the heights as a refuge from powerful invaders they were unable to resist. In their fastnesses they treasured and preserved the customs and traditions of their forebears as something sacred. Because of lack of means of communication they developed strong individualism, sometimes modified by the feeling and cult of the clan on account of the necessity of the individual for protection in their fierce and incessant tribal feuds.

Education was rare because it can never be local save in a halting and ineffective manner, and can only have general diffusion when made the business of the governing power whether state or nation. Like most

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elemental peoples, the mountaineers were extremely superstitious because of daily contact with nature in her savage and impressive moods. Yet along with this provincialism and circumscribed mental horizon, there went great endurance and much courage. Save with local peculiarities and modifications, such have always been the characteristics of long-time dwellers in the mountains in all parts of the world.

Gold Mining

It remained for the mountain states of the West to produce a new and distinct type of dwellers on the heights, strikingly expressive of American initiative and progress. Those who first came to the mountains of Colorado had but one thought—to wring from the rocks and crags their buried treasures of gold and silver. They were men with no burden of the past resting upon them, they were soldiers of fortune seeking new fields of adventure. They were affected by the spirit of the mountains far differently from those to whom the Everlasting Hills had been a refuge from the oppressor. For the history of Colorado, as that of California, commences with the discovery of gold. In 1858 the first gold was panned from the sands of the South Platte River, not far from the present site of Denver. For the next quarter of a century the state was largely a mining camp. Those were the days when the canvas-covered prairie schooners of the gold seekers were known by their signs of "Pike's Peak or bust," and the final clause was often the fate of many.

Other Minerals

There are few industries which have the inherent vicissitudes and dangers of mining. Yet the risks are

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often compensated for by unexpected and vast successes. So it was in Colorado from the beginning. The great mining camps—Cripple Creek, Creede, Leadville, and their kind—ran the gamut of all the varying changes of fortune. When one deposit decreased, new fields were discovered, or great finds of new metals were unearthed. The state was always close to the front in the production of gold and silver—her principal rivals being Montana, California, and Nevada. The production of silver suffered a severe slump during the free silver agitation of the early nineties, and for many years the output trended steadily downward. Meanwhile gold production held its own because of great improvements in mining methods.

Later on there were, and still are, great outputs of lead, copper, zinc, tungsten, radium, and vanadium. Coal became an important production, and so did petroleum. Then were seen great possibilities in oil-bearing shale. There were likewise developed great quarries of building stones and clays and cement materials. The success of mining in the early sixties, and the consequent increase in population, practically "put Colorado on the map," first as a separate territory—for originally she had been a part of Kansas—and later, in 1876, as a state.

Successive Discoveries

Mining as a permanent industry and source of revenue and employment to the people of any locality or state is at best an uncertain quantity. It is true that there are copper, silver, and coal mines in various countries of the world which have been operated for centuries and which are still producing. But there are numberless instances, on the other hand, of mines once richly productive which are completely "played out."

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There are "pockets" which play out, fissure veins which encounter a "horse" or a "fault," and placer mines which become exhausted, and the once thriving country, dependent upon their output, relapses into uninhabited desert wastes.

But the story of mining in Colorado is that of a continuous performance. When one camp or one field has decreased in output, another new discovery has more than made up the deficit, or else some other metal takes the place of one that was once productive. Zinc mining is a case in point. It is a development of less than a score of years, but now the value of this output is second only to gold and much greater than that of silver. The value of silver production which in 1892 was $23,000,000, fell to $3,500,000 in 1915, while the yield of zinc rose from $2,500,000 in 1902 to $18,000,000 in 1915. Meanwhile the value of the gold mined fluctuated annually between $18,000,000 and $28,000,000 for a score of years. There is no present sign of exhaustion in the mining possibilities of the state, and the likelihood is for an indefinite continuance and expansion along the new lines.

Mining Uncertainties

Meanwhile the people of the state, like the steamship in Kipling's tale, at last "found themselves." Among the many and various influences which crystallized their thoughts, ways, and ideals into a definite creed and policy, the mining influence has been apparently dominant. But just in what way the influence of mining has operated is not at first easy to recognize, because of the paradoxes which distinguish and accentuate it.

Mining is lived largely underground and among most unattractive surroundings. Mining towns in the main are not engaging or picturesque in appearance. More-

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over, the miner, the elemental man, engaged in hazardous occupation, has usually the strong class consciousness which responds readily to organization. So it is not strange that mining is marked at times by bitter industrial strife between employer and employee. The uncertainty of employment, because of the constant shutdowns or suspensions of work, are most trying to all concerned. Not only the workers, but all dependent upon them, directly and indirectly, suffer the demoralizing effects of those uncertainties. The entire economic life of the mining town and camp hangs upon the prosperity and continued operation of the mine. When the mine closes down, disintegration and dispersion of the population inevitably ensue, because the certainty and stability of life and existence no longer remain.

Railroad Building

But the influence of mining upon the thought of the state was largely that of incitement to greater efforts and to further development both direct and incidental. For mines are of no value without means of communication and transportation to bring the ores to market. It was small value to discover rich ore fields unless railroads were near at hand or could be brought within needed distance. Hence came the enterprise, expenditure, and skill which tunneled mountains, climbed the highest passes, and ran railroads and wagon highways through the deepest cañons.

Building roads, whether for steam or ordinary vehicles, was a gigantic or costly task in the mining districts, which were practically all situated in the mountains. The engineering feats involved in such construction were the marvels of the day, and still remain as monuments to the skill, ingenuity, and resourcefulness of the

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engineers. Those who have been over Marshall's Pass or through the Royal Gorge and Black Cañon on the railroads, or have ridden in the old-fashioned coach from Ouray to Red Mountain along the Uncompahgre Cañon, have evidence of the enterprise and initiative which came as the result of the mining spirit for exploitation and development in the Colorado mountains.

The Rockies

Mining led to the development of the peculiarly strong and hearty state pride of the people of Colorado. Two other influences aided: one of them, the influx of summer tourists; the other, the abiding influence of the mountains, plains, and the desert. And to understand these influences there must be some knowledge and conception of the topography of the state.

Colorado is one of the largest states of the Union, ranking seventh in size—about twelve times as large as Massachusetts, and nearly twice as large as Iowa. The eastern two-fifths of the state is a continuation of the great plains of Kansas, Nebraska, and Oklahoma, with the land rising gradually from the state lines westward to the foothills. Immediately beyond, the towering Rockies rise abruptly through the timber line and up to the eternal snows. There are over forty peaks, which are close to the greatest heights in the United States. The state has the highest mean altitude of any of the states. The main range of the Rockies runs north and south through the central part of the state, with numerous ranges and spurs that cover more than half the state.

The Divide

The Continental Divide, or Watershed, follows closely the trend of the main range. On the east of

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this mighty barrier, the headwaters of the Arkansas begin their long and tortuous journey to the Gulf of Mexico. Not far away, on the west of the Divide, rise the streams which make up the Gunnison, and which, across the line in Utah, join the Green to form the Colorado as it plunges into the abyss of the cañons which mark its turbulent course—to emerge at last in the deserts of Arizona, and thence to make its way southward into the Gulf of California.

Topographical Contrasts

Like most of the mountain states, Colorado has startling contrasts of wide-stretching plains, expanses of desert, and the predominating maze of mountains. There are great valleys or parks, and narrow cañons, towering, precipitous, where there is only room for the rushing mountain torrent. There are plateaus or mesas, forest-covered, carpeted with miles upon miles of wild flowers. There are grim, bare, rocky ranges, shutting in narrow valleys which are gardens of delight, with birds and trees and flowers, because of the brooks that give life and beauty to the scene.

There are vast stretches of desert that still have the age-old charm for man—the charm that held him in the infancy of the race, in the birthplace of humanity—with its solitude, its grim silence, its overwhelming loneliness, that speak to him of the dawn of creation when the morning stars sang together and of changeless time and eternity, beside which his brief history is as a watch in the night. On every hand, there are these startling contrasts of the great wind-swept plains, the arid, dusty desert, the far-stretching snow-capped ranges, and the valleys of beauty, where there is water and all life.

For the first time the visitor from the humid climates

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of the East and South has comprehension and understanding of the pricelessness of water, in the cold crystal streams that have their sources in the snow-capped summits. He realizes then the meaning of the poetry and literature of the East and of the Old Testament, in which water is the source of all life, of the constant craving for its refreshing coolness, and how it has become the synonym for all that is purifying and reviving. For the climate of Colorado is a dry and thirsty one. Only on the heights is there the precipitation which is the life and salvation of the commonwealth.

Rainfall

No general statement will cover either the rainfall or the temperature of the state. The differences in altitude make corresponding differences in climate. The difference in mean temperature between the summit of Pike's Peak and the eastern plains is as great as that between Iceland and Florida. Precipitation ranges from 5 to 40 inches annually, according to the location and topography of the country. It increases somewhat from east to west, and it is much heavier in the mountains than in the plains.

In common with the great plains states, Colorado experiences at intervals years of drought, that often flock together—sometimes two successive years, sometimes three. These dry years are usually dry throughout, with only one or two months that show any appreciable rainfall. Most of the rainfall is in the growing months, from April to September, but in some of the mountain regions precipitation is heavier in the winter and is in the form of snow. The western ranges have greater precipitation than the front range, inasmuch as they are near the "low pressure" areas coming from the

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Pacific Ocean and draw from them much of their moisture.

So it is that the annual rainfall on the tops of the high mountains is often twice as heavy as on the plains. It accumulates in winter in the form of snow, and its depth, extent, and the manner in which it is packed is the measure of the amount of water available for irrigation in the following summer when the snow melts and swells the mountain streams. In fact, the life of the state depends practically on the precipitation in the mountains.

Stimulating Climate

The extreme ranges of temperature between summer and winter are often very marked, but the effect upon human beings is much modified by the extreme dryness of the atmosphere. There is much wind movement, very low humidity, and abundant sunshine. These three factors constitute the chief charm of Colorado's surpassing climate. It is a climate not alone health-giving but furnishing the utmost stimulus to human action and initiative. The climate, together with the beauty of Colorado scenery, have naturally made the state a great health and pleasure resort.

Tourists

The effect upon the people of any locality of a constant visitation of tourists—health and pleasure seekers—depends much upon the nature of the attraction, since this in turn determines largely the nature of the tourists. If people come merely to a fashionable pleasure resort, they produce little effect upon the economic life of the state save in the immediate localities they visit, although in some instances the tourist invasion, when persistent

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and in force, has had a definite effect upon the development of some phases of economic life in such localities.

On the other hand, if the visitors be largely lovers of nature, and those seeking that broad education to be found in intelligent observation, they are sure in time to impart a large share of their cosmopolitan breadth of view to the people of the region they visit. The mere contact of the residents with those who bring with them different ideas and another trend of thought is in itself destructive of that provincial narrowness of mind which is usually the sure portion of those who stay constantly at home—whether on the secluded and solitary farm, or in the crowded, congested center.

Those who came to Colorado as visitors came either in search of health or else because of the wondrous charm of climate and scenery. In particular it was mainly the lure of the mountains, which have had a fascination for humanity since the beginning of time.

Untrammeled by Tradition

The new inhabitants of the Colorado Rockies differed essentially from the mountain dwellers in the Old World. For them there were no traditions, no superstitions, no ways of the past connected with the mountains; only the sense of nature's splendor and majesty which appeals to every phase of humanity. To them the mountains were one of the great phases of nature to be reveled in, to be exploited, to be subdued to man's purposes, pleasures, and advantages. The mountains were the Everlasting Hills of the Old Testament imagery, the abode of beauty and sublimity, the storehouse of incalculable riches hidden in their depths, the source of those innumerable streams which made irrigation and agriculture possible.

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In Colorado we find two special incentives to human action and initiative: the inspiration of a health-giving and invigorating climate, and no less the driving force of necessity. It was inevitable that the mountains should call to the residents of the Old World, who were peculiarly the creatures and victims of the past, and to those living in an atmosphere of convention and tradition, often perhaps of ease and comfort, but where society was all and the individual nothing, where iron-clad customs prevailed and initiative had died. Such victims of too much civilization found in Colorado that return to the elemental and essential which every great expression of nature—the desert, the plains, the ocean, the mountains—brings out in man.

Hard Struggle

In the mountains nothing is to be had in the way of subsistence or wealth-getting without strenuous exertion and struggle. Fuel for creature comforts—not for manufacturing merely, but for heat and cooking—was not easily had. The forests were mostly upon the mountain heights and were not immediately available. Coal was in abundance, but it was all in mines and had to be laboriously dug. Equally was this true of the untold metal and mineral deposits. Not only must they be mined but roads must be constructed to the mines at great labor and expense. Nor was extensive agriculture possible without equally extensive irrigation, and irrigation is a complex affair in most mountain states, requiring great expenditure of money and much constructive work. In the Uncompahgre Valley project, for instance, to make the waters of the Gunnison available for needed irrigation, a tunnel had to be driven through the base of the mountains.

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Advantageous Production

One of the economic necessities of every nation and every state is that of being "self-contained." There is a limit, however, imposed by climate, topographical conditions, situation in relation to other nations or other states, by resources or lack of them, and by the transportation facilities, as to the ability of every nation or state to provide for itself and within itself the things which its people need for all the complicated affairs of life. The real problem is concerned with the extent to which nation or state can provide within itself those things which it can produce to better advantage or more economically than other nations or states. That is the theory, which naturally is much modified in actual practice.

Early Agriculture

The things produced in Colorado were, and still are, largely ores and similar raw material. In the beginning there were no manufactures of any moment, and the chief food products consisted of live stock—the mountain parks, and some of the plains near the foothills had long been grazing countries. What little agriculture existed—far from sufficient for the needs of the people—was made possible only by irrigation.

Irrigation is at once the earliest and most successful form of agriculture. It was the basis and sustaining force of the most ancient civilization of which we have any record. It is likewise the most intensive and most productive form of modern, scientific agriculture. The supply of moisture is completely under the control of the agriculturist, there are no devastating droughts to contend with, and destructive rainfalls are rare. Moreover, there are fewer insect enemies than in lands with

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abundant rainfall, because the surrounding desert offers no harbor for pests. Hence production per acre of almost every agricultural product largely exceeds that of humid soils.

Irrigation Works

There is much water in Colorado from the numerous streams flowing through the state, except in those winters when the snowfall is light on the mountain tops, or in the dry summers when rainfall fails. But to get the water to the fields is not so simple, and in its fullness requires time, labor, and much constructive work. There were ditches to be dug, streams to be diverted, tunnels to be bored, dams to be built. Irrigation grew fast, however, and in 1899 and again in 1909 Colorado ranked first among the states in the number of acres under irrigation. Today more than half of the irrigable acreage in the state is under cultivation, and more than half of the production is in irrigated fields. Nor is the story completed. For the possibilities of irrigation have not yet been exhausted.

"Soil Mulch"

Moreover, by means of dry-farming methods the cultivation of non-irrigated lands has of late years grown with even greater rapidity than irrigated fields. Lands thought unavailable for lack of sufficient precipitation have thus been made productive. Now dry-farming is another most ancient form of agriculture, having originated in those thirsty Eastern lands, which were the birthplace of man. It seeks to conserve the moisture in the soil by the simple process of preventing its evaporation. Rainfall percolates down into the soil, both from gravity and from capillary attraction, until it reaches a

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clay or rock bed or some impervious underlying strata. As the moisture near the surface evaporates under the influence of heat, leaving a dry stratum, the moisture lower down ascends again, along the capillaries—or chimneys and vents in the soil—and against the force of gravity. It is exactly the process by which an entire cloth becomes saturated if you dip the lower end of it in water.

Dry-farming prevents the ascending moisture from evaporating by maintaining a shallow "soil mulch," or pulverized broken-up surface. In this mulch there are no capillaries—they have all been broken up—and the ascending moisture is thus held and made to supply the plants instead of escaping through evaporation. It is the least productive per acre of any form of agriculture, but it makes farming possible under dry and semiarid conditions when all other methods fail. Because of dry-farming, and also because of the use of silos as reservoirs of cattle feed in dry summers, much land in Colorado has been brought under cultivation which under other conditions would be available only for cattle grazing.

Variety of Crops

So it has come about that the "lead" in the great drama of productive life in Colorado shifted from mining to agriculture. Even though mining gives no sign of "playing out" but rather of steadily increasing in production, agriculture is now the great and important industry of the state. Nor is this due to naturally rich soils and abundant rainfalls, but to the native intelligence and initiative, which adopted and applied the resources at hand—water-power for irrigation, and dry-farming methods for the semiarid lands.

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During the past score of years the acreage under cultivation in Colorado has increased about eight times as fast as in the remainder of the United States, and crop values three times as fast. This great increase covered a wide variety of products. The state now grows wheat and all the small grains, corn, and the grain sorghums, alfalfa, clover, and the other legumes, and is one of the leading producers of sugar beets in the country. It grows much fruit, apples, peaches, cherries, and cantaloupes which have a nation-wide reputation and distribution. In the growing and distribution of fruit its people necessarily learned the vital principles of community work through co-operative societies. It has many sheep, hogs, and dairy cows, and the cattle upon a thousand hills.

Colorado cannot make much of a record in quantity of agricultural production, inasmuch as much of its area is in mountains, or is desert land that cannot be reclaimed because of lack of water and is only available for cattle ranges. But its products compare well with those of any other state in quality; and in respect to yield per acre for nearly everything it raises, it is in the front rank.

Manufacturing

Naturally manufacturing development was slow, originally from lack of fuel and the long distance from the large markets. But during the past twenty years the story has been different. There are inexhaustible supplies of coal. There is coal oil and much potential water-power. The latter is only partly used as yet, and its great possibilities are largely dependent upon the construction of storage reservoirs, which would hold the water during flood seasons and furnish a uniform flow

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throughout the year. There are also immense stores of raw material.

Hitherto, manufacturing has grown along the natural lines of native raw materials most easily made and sold—packing house products, sugar from sugar beets, flour, lumber, manufactures of iron and steel, brick, tile, stone, and dairy products. The real problem of more extensive and general manufacturing in the future seems to be that of marketing—for the near-by demand is not as large as the possibilities of output, and it is a far cry to the larger markets. The time and expense of transportation are serious handicaps.

This problem is being solved in part by the very rapid development of the area in which Colorado may expect to find much of its market. This area is growing fast in population, in wealth, and in consequent wants. Moreover, the period in manufacturing in Colorado has been reached where excellence and merit form a large part of the selling value of much of its manufactured material. In such cases there is always a constantly widening market for articles of this nature.

Engineering Skill

In the mountains of the Old World and of some of our eastern states, lack of means of communication was and is largely responsible for the lack of education among the people as well as of their unprogressiveness. Small isolated communities living unto themselves have perpetuated all the superstitions and unreasoning customs of the past and regarded them as sacred inheritances. But Colorado was settled in the age of railroads, though it was hard to build even a wagon road in that rugged wilderness. The railroads were always marvels of engineering skill and ingenuity. They typified that

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American resourcefulness and adaptability that stopped at nothing. They went into all forbidden places and did all impossible things. In the Royal Gorge of the Arkansas River, when the narrow walls of the precipitous cañon left no space save for the roaring torrent, the bridge that conveyed the rails over the foaming waters was anchored in the solid rock.

Roads

Equally daring and equally impossible and ingenious, though not equally perfect in construction, were the wagon roads. They clung at dizzy heights to the precipitous mountain sides, and often were dug out of the mountain itself, or else held up by supporting trestles. They were often mere trails, indistinguishable from the surrounding mountain, save to the trained eye of the cowboy. They had most unheard-of gradients, full of rocks, and desperately steep.

Down these trails came the old-fashioned stage-coach and the sure-footed, intelligent team at full lope, guided by the real driver of all the ages—his foot upon the brake; the reins gathered in one hand; quiet, watchful, yet apparently unconcerned; flicking the leaders now and then with his long stinging whip, and calling them by name as they went at full speed up to the sharp turn and at the last moment swung around at right angles—with the soaring precipice above, the yawning chasm below and the outside wheels scarce six inches from the brink of the abyss, playing tag with death and eternity. The romance and poetry of driving went out with the Jehu of the Stage-Coach! Later days have brought smoother highways, gentler gradients, and the safer automobile, but roads are still the life-blood of the economic situation and steadily grow in miles and quality.

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School System

There are many foreigners in Colorado and many more of foreign parentage. Yet the state ranks low in illiteracy and high in education. It is a land of intelligence—far different from the prevailing conceptions of a mining state. Within less than a twelvemonth a leading research society in the East, after long and impartial investigation, found that the West, and especially the mountain states, led all the rest of the Union in the general excellence of their public school systems. And thereby hangs a tale of a seeming paradox, that is strange and yet passing true.

"Good from Nazareth"

Colorado, like all the mountain states, began with mines. There were mining camps and dance halls. There was shooting up of towns by riotous cowboys on monthly pay-days. There were train robberies and stage-coach hold-ups. There were "bad men," who were dead shots and had their private graveyards. In the literature that pictured the Wild West as a place of riotous living and utter lawlessness, there was much exaggeration and cheap theatrical display. Yet the sober truth was dramatic enough and in a great many cases sordid enough.

But from this welter of unrestrained individualism and of the absence of all conventions, there emerged a commonwealth that was always striving for ideals—a commonwealth that lived its own thoughts and cared not for the sodden, hopeless ways of the past, with the shackles of mental and social conventions; a commonwealth that made the mistakes of youth in some of its political and financial dreams, but dreamed those dreams because they were the visions of better things. For

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Colorado was always for true and genuine democracy, and fought corruption and intrigue in its midst with the courage of its convictions. It was an early and ardent advocate of woman's suffrage when many belated minds were still delivering solemn platitudes about woman's proper place in the home and not in the arena of real life. Colorado was for prohibition as the greatest of all economic reforms possible to any state. How could the mining camp and the dance hall produce the state of law and order, of education and intelligence? How could any good come out of Nazareth?

Elemental Man

The decay of every civilization of the past has been due to that degeneracy and degradation which find their worst expression in the great cities. It is the story of the loss of those qualities which make for manhood and for womanhood, and the growth of deceit, treachery, lying and slandering, and all the evil crop of envy, hatred, and malice; of the loss of truth and honor; of the drying up of the milk of human kindness; and of the unspeakable shame of every form of indulgence. The savage and cruel Huns and Goths who overthrew Rome had some elements of courage and manhood compared with the wretched crew of decadents who inhabited the Eternal City.

But the early days of the mining camps brought to the front the elemental man. He had all the attributes of courage and faithfulness, of honesty and fairness. Despite his occasional excesses, he had his own code of ethics and morals. He was a good sport, never like the tough of the slums who stabs in the back. To this day, in mountain and cowboy countries, lying and stealing are unpardonable sins.

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Enduring Economic Life

After a time this primitive man came to himself; he could no longer fill his belly with the husks which the swine did eat. Then came the days of vigilance committees, of the beginnings of law and order. He did not borrow a civilization from the Far East, nor even from the older states. He made his own code, imbued as he was with the spirit of the mountains, the plains, the desert. He realized, as the world has never before realized, that the things, and the only things, which make for enduring economic life are the things of education, and of intelligence, of human understanding and sympathizing democracy—the things of progress and advancement in an ever-living present—the things of orderliness, yet of free speech and action—and the sum of all these things, idealism and sober constancy of purpose, which must always be the foundation stones of American democracy.

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CALIFORNIA

Race Consciousness

One of the many lessons taught by the Great War is the vitality and enduring character of national and racial feeling under most adverse and trying conditions. It is not surprising that this feeling is always more or less in evidence among subject nations who differ from their rulers in race, color, religion, language, and every other vital human factor. In such cases there is the natural sense of antagonism of the ruled against the rulers because of being dominated by those who are foreign to them in every aspect. Poland, for example, which had been subject to foreign domination for over a century and a half, had strenuously resisted the constant effort on the part of conquerors to root out every element which tended to preserve the feeling of nationality among its people. Moreover, this resentment against alien control is accentuated by the native consciousness of the unctuous hypocrisy on the part of the conquerors that their domination is for the best interest of those over whom they rule.

State Individuality

So in the study of the states we observe a similar tendency for each to maintain a certain individuality.

The philosophy and feeling of states rights, however they may be defined, have far deeper root than merely the legend of thirteen separate colonies united for a common cause. In the last analysis they rest as a living force upon the collective individuality of the people of

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each separate commonwealth, an individuality unexpected yet vivid and undying which differs in many essential particulars from that of other states, and which, beyond a certain point, refuses to brook outside domination.

In none of the forty-eight bodies which make up the Union is this trait more pronounced than in California. The story of the Golden state really begins with the discovery of gold in 1848, for that far-reaching and momentous event altered the history of California for all time. It broke the spell of a dreamy, superstitious Spanish and Mexican past and ushered in a new commonwealth of robust democracy. The entire United States and much of the civilized world immediately flamed with the story of the discovery. There ensued the modern epic poem of the Argonauts of '49, who little dreamed of the creation they were to hand down to posterity.

Argonauts of '4

In those days, when railroads were largely local, California was more remote from most of the United States than was Europe. The overland route meant a long and heart-breaking trek. When Kansas and Nebraska were passed there were ahead the towering Rockies with the thirsty, pitiless desert before and after them. There was death in the path, in the shape of savage Indian riders of the plains, in the shape of lack of water and dearth of food. When all these were left behind, there were still the snow-clad, lofty Sierras barring the way ere the gold fields were reached. By sea there was the long, long journey around Cape Horn or across the deadly and fever-infested Isthmus of Panama.

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Yet nothing stayed these Argonauts, mad with the lust for gold, and soon the mining camps were overflowing with humanity that seemed at once to revert to original type. There was dearth of women, and so all the conventionalities and ways of civilization were soon forgotten. It was a man's country in deed and thought and much of this still perseveres unto this day. The miners were a motley crew; adventurers, men with pasts, human birds of prey, mingled and jostled with the pick of the world's manhood. Their blasphemy, their disregard of every law save that of the jungle, their lack of fear of man or God or devil, their courage and endurance, their human sympathy and loving-kindness, their faithfulness unto death in friendship, have been immortalized in "Roughing It" and "The Luck of Roaring Camp." The new community was a law unto itself, for all the rest of the world was far away and California was separated from all civilization, old and new, by the towering Sierras, the long stretches of endless desert, and the boundless Pacific. With no past, no history, none of the illusion of tradition and legend, only the present and its realities, there was immense tolerance, coupled with a plentiful lack of prejudice, save against some unmanly things—cowardice and treachery, for instance, lying and stealing, for which there were the vigilance committee and the rope. Here too, of course, law and order had to be maintained according to the needs of the new community, as the human birds of prey soon learned to their undoing.

Geographical Isolation

Inevitably the expression of this isolated pioneer spirit developed into an intense individualism which yet was cosmopolitan, not provincial. For the Argonauts were

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from the four corners of the earth and the usual narrowness of the pioneer was largely absent. This individualism in turn assumed the collective form of a state pride which even today probably has no parallel among all the forty-eight commonwealths of the Union. The geographical isolation naturally bred an intensity of local interest, for the physical remoteness from the rest of the world made state happenings matters of supreme moment. All the energies of the elemental men who made up the population centered in the aim for state development. Obviously the people of the state must supply their own wants so far as nature permitted and so far as lay within them. For all help was afar off.

Dry Climate

Besides, there was much in all that lay around them to awaken their enthusiasm for their adopted country. It is a land of infinite variety of scenery, some of it the most beautiful and the most impressive in all the world. The snow-capped Sierras are full of crystal streams, of wondrous lakes, of picturesque valleys and cañons, and of the oldest and most superb forests in all nature. There are great rivers and great land-locked harbors. There are long stretches of desert, silent, hostile, forbidding, yet with a charm that can be understood only when experienced. There are naturally great differences in temperatures in a land that is 780 miles in length, from 150 to 350 miles in width and 158,000 square miles in superficial area.

Primarily it is a dry climate, because of the general distribution of the barometric "highs" and the fact that the North Pacific "lows" usually touch only the northern section of the state, though they keep perpetually green the western shores of Oregon and Washington. The

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mountains of the Coast Range take much of the moisture from the Pacific, making the great valley between them and the Sierras a land of moderate rainfall, while the Sierras absorb what moisture is left in the ocean winds and give it to the country in many streams for irrigation and electric power. The annual precipitation varies from nothing at all in Death Valley to 75 inches in the heights of the Sierras and the various ranges of the northern portion of the state. In general, from 20 to 25 inches annual rainfall is accounted sufficient in the country outside of the arid sections, and most of it falls between September and May. The summers are almost rainless save in the lofty mountains. There is fog at times on the more northern coasts, but on the whole it is a sunlit land. The nights are cool and an invocation to that sleep which knits the raveled sleeve of care.

Especially in Southern California, the charm of the climate makes mere existence a pleasure. So it is that the land is peopled with those from every part of the country who have come that they may realize the mere joy of living. The great ocean that breaks upon the thousand-mile coast line tempers the extremes of heat and cold. It was this combination of scenery and climate that fired the imagination of the early Argonauts and found expression in the genius of Bret Harte, Joaquin Miller, and a hundred lesser lights.

Population Growth

In time the output of gold decreased, although it is a large economic factor even to this day, usually the largest of any of the states. The growing population must needs find additional means of subsistence in the isolated land. Population was increasing, in fact, far

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more rapidly than that of the United States as a whole, for California was the most widely known country in all the world. Not since the romantic days of those famous and daring adventurers, Cortez and Pizarro, had there been such world-wide excitement and frenzy over the finding of unparalleled treasures of precious metals. The splendor and sordidness of the newly created scene, the return to primitive existence of the Argonaut adventurers and their rude untrammeled life appealed with compelling power to a jaded and conventional civilization. To the adventurous and daring throughout the globe California was a land of poetry and romance, and a land of opportunity such as could not be matched elsewhere.

In the decade 1850-60 population increased over 300 per cent. Naturally, prices of food products rose to fabulous heights. So there was every incentive to the prosecution of agriculture. This was the second momentous epoch in the economic life of the state and blazed the way for that agricultural development which has scarcely a parallel elsewhere. The dynamic energy of the gold-seeker, which carried him across the trackless deserts or around the Horn on his endless journey, now turned to agriculture, partly from hope of gain, partly from necessity. But there could be scant vision at that time of the actual agricultural production of the future, in comparison with which the gold output of the early 50's was to be a thing of small moment.

Wheat Raising

Much of the soil of California is naturally fertile. It is what is known as "residual soil," having been brought down from the lofty mountains through endless ages by the numerous streams. As California is not a land

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of abundant rain there has not been much "leaching," or washing out of the priceless soluble elements, which thus remain to enrich the land. The restless energy of the new agriculturists, however, turned to the raising of wheat, for in those days even more than now bread was the staff of life. For several decades by reason of the crops grown in the great central valley California was among the principal wheat-raising states. Much of the grain was exported, for the trans-continental railways had now crossed the country and there was also much shipping by sea.

Irrigation

But there was ever present a handicap for which there was no remedy. Precipitation throughout the state, save in the heights, is practically all in the fall and winter. So crops, in the growing season from April to September, depend for moisture upon what is conserved and held in the soil. But there are years and seasons when the rains fail, for in practically every state west of the Mississippi River there is the inescapable certainty of the recurrence of dry years, those of insufficient rainfall at uncertain yet sure intervals. For the polite fiction of meteorological science about annual rainfall averages is invented merely to satisfy the unknowing mind which seeks to average all things. In nature there are no "means," or "averages," or "normals," merely startling contrasts forever repeating themselves. Consequently in the dry years the crops were in a parlous state.

The opportunities of climate and soil were too great and too universal to depend entirely upon the rainfall alone when other means of securing moisture lay close at hand. There was nothing grown in temperate and

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subtropical regions that could not be grown in California if the needed moisture could be had. So the thoughts of the settlers turned to the oldest, most certain, and most productive of all agricultural devices—irrigation. That was the foundation of the greatest, oldest, and most splendid civilizations of the past, Egypt, Babylon, Nineveh, Carthage, and those of Roman Africa. When, through the indifference, degeneracy, and decay of the people, the irrigation works were neglected or destroyed, the luxurious capitals of these great empires perished off the face of the earth so that for many centuries their very sites were unknown and forgotten among men.

Desert Civilization

There was now to be witnessed in a modern democratic state a recrudescence of the civilization of the desert. There was much waste land, some in the central valley and much more in the southeast, where for untold centuries fierce heats and the rocks and sands of the lonely and forbidding desert held undisputed sway. There was scant vegetation, in many regions none at all, and the only animal life was that of poisonous reptiles. But there was also much water, in the underground flow that could easily be tapped, and in the many streams that came down from the heights of the Klamath and Siskiyou Ranges and the far-flung ramparts of the Sierras. The latter especially were the source of California's agricultural and economic life. The warm, moisture-bearing winds from the Pacific broke into "a dust of blue rain" on the snow-capped heights, and went on eastward dry and parched, robbed of all their moisture. Save for the Sierras, California would share the fate of the arid states on her eastern border.

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Co-operation

The days of gold mining as the state's principal industry were over, and those of agriculture were just beginning. But the fierce and dominant individualism of the mining community had to be replaced by the spirit of co-operation as the condition of success, especially in irrigation. For irrigation is essentially a matter of community and teamwork. Few irrigation projects of any moment are the creation or the possession of the individual. Water rights, besides, are things in common and matters of legislation and precise adjustment. Hence it is that the dim historic civilizations of the reclaimed desert tell always the story of a people, a single unit with many laws and strict enactments, which rose, flourished, and died as a nation leaving not a wrack behind.

For a commonwealth of its great size, there was but a small proportion of arable land in California. There were large swamps, most of which, however, might be reclaimed; there was a wide stretch of hopeless desert in the southeast; and there were uncultivatable mountains. Of the total area about 28 per cent was in farms and only about half of that was improved. And in the course of time about one-third of the improved land was under irrigation. The charm of irrigation is its certainty. Given enough water and there is rarely any question as to a bounteous harvest. For the crops are cultivated usually under cloudless skies and free from the predatory insects which are the bane of agriculture in the humid lands.

Diversification

In 1869-70 when general railroad transportation was established in the San Joaquin Valley irrigation began to undergo large development, and a decade later the irri-

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gated district was greatly increased by reason of the development of fruit raising. At this period, only a generation after the real beginning of the state, it was an easy prophecy for the student as to what the future had in store. Given a country of boundless resources, and a people whose spirit and energies had been created by the stern necessity of a battle for very existence, the only possible result was an era of great and varied development.

The first problem was to take advantage of climate and irrigation and to try the venture of a diversification, unknown in America hitherto, of all the agricultural products included in the possibilities of the situation. Along with such production must go the all-important factor of distribution. For it was a far cry to the great cities of the East where the surplus products of the state must be marketed, in the face of all manner of competition, domestic and foreign. It was a long haul to these consuming centers and the cost of transportation was heavy. There must be established a reputation for the quality and appearance of its fruits and garden truck, so that they may not be sold on their price alone. It was likewise well to raise in great quantities such products as were not peculiar to the rest of the country and whose novelty and rarity would be special best-selling factors.

Growers' Associations

There was only one way to bring these things about and that was by those co-operative "growers' associations" which alone make possible to many individual growers the intelligent, efficient, and profitable marketing of their products. These associations have representatives in all the leading markets thus keeping con-

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stantly in touch at all points with prices and with possibilities of consumption. Moreover, the associations know all the intricacies of packing and preparing commodities and the innumerable details of transportation. As a result of their activity, in due time California fruits and vegetables had a name and reputation in every section of the Union. They possessed the distinction of personality even in districts where they were merely different from, rather than superior to, the native product. They enjoyed that best of all advertisements, criticism and comment, sometimes friendly, sometimes disparaging; in all instances they were at least subjects of discussion. They went eastward as they still continue to go by thousands upon thousands of carloads annually. California citrus fruits, oranges, lemons, and grape fruits, have practically driven the foreign imported product from the home market. In large-crop years California ships 50,000 carloads of citrus fruits, netting the growers about $50,000,000. And in 1916 there were shipped out over 106,000 carloads of fresh fruits and vegetables, 16 per cent of the amount shipped by all the forty-eight states.

Fruits and Vegetables

The next step was the drying of fruits and the canning of fruits and vegetables, because of the advantages of small and condensed bulk in shipping and of preservation for an indefinite period. These methods of food preparation and preservation gave great opportunities for advertisement and for new markets where the matter of time in transit or in use were of small moment. The state raises about 50 per cent of all the peaches in the United States, but most of them are marketed in either dried or canned form. The grape culture became

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an extensive industry, producing table grapes, wines, and raisins, and now practically supplying the demand throughout the country which once knew only the foreign article. Some of the statistics are rather staggering. Here is one item. The output in 1917 of cured fruits—apples, peaches, raisins, prunes, and the like—was 340,000 tons. Of similar magnitude is the production of nuts, especially walnuts and almonds, whose annual output is reckoned in thousands of tons. It is literally true that all agricultural products of any importance which are raised anywhere in the United States are now grown in California. The state is now second in the Union in rice production, and since the Imperial Valley was redeemed from the desert by the silt-bearing waters of the Colorado River it is reckoned among the cotton-producing states. Moreover it is already growing, on a large scale, the date palm brought from the Sahara and is experimenting with other tropical fruits.

California no longer produces the agricultural staples in great quantities, but rather a multitude of many things far more profitable and on which it is building an enduring reputation as a source of supply. In 1917 there were shipped out of the state 212,000 carloads of fruits, nuts, vegetables, olives, in all their various forms, fresh, dried, and canned. All this is a marvel of intelligent cultivation, and even more of intelligent and efficient business distribution in which California is joined by her sister commonwealths of the Pacific Slope, equally remote from their nearest markets.

Commercial Fruit Growers

It is a curious and interesting fact that the growers of commercial fruit on a large scale are among the most intelligent of agriculturists. They must know many

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things. They must be familiar with some phases of meteorology, because the weather is at once their best friend and their worst enemy. They must have some knowledge of entomology, to protect their crops from predatory insects. They must know the chemistry of soils, for each vegetable and each special fruit thrives best in its own peculiar soil. And they must of course be acquainted with the general principles of agriculture and horticulture. Moreover, they must be entirely at home in the complexities of distribution, else all their labor of production is in vain. When yields are large and remunerative such men are liberal spenders and like most intelligent purchasers have ever an eye to merit and quality. These irrigation farmers in California are among the most progressive and intelligent people in the state.

Manufactures

Though agriculture is and always will be the greatest of the state's industries, there has been active and intelligent development in every productive line. There are many hydroelectric plants, because of the numerous streams which furnish the needed power for manufacturing. There is, moreover, abundant fuel in the great oil fields.

Naturally California manufacturing turned to the use of native raw materials, producing lumber, beet sugar, flour, and wine, and developing petroleum refining, cement-mills, and the various canning industries. Later on all sorts of things were manufactured, from finished materials in iron and steel to many of the varied products of modern economic life. By 1914 the state had climbed to ninth place in the Union in manufacturing.

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California has many minerals other than gold: copper, pottery clay, lead and zinc, both silver and quicksilver, coal, and natural gas, and a rather long list of others.

It catches and cans many salmon in northern streams. It has always been a country with much live stock. Livestock raising had been one of the important pursuits before the country was taken over from Mexico. There were great haciendas or ranches of 150,000 to 200,000 acres, remnants of the feudal methods of agriculture which have always marked Spanish rule in the Americas. Although it is largely a mountainous and desert region, it has many automobiles and many roads because it spends large sums for them.

Sequoia Gigantea

With its forest-clad mountains it is one of the great lumber-producing states. It has oaks, redwoods, gum trees, and many species of coniferous trees, cedars, firs, and yellow and sugar pines. It has also the superb *sequoia gigantea.* These magnificent trees are the oldest living specimens of organic life. The concentric rings of some of those which have been felled indicate a span of life which antedates all known recorded history. It is claimed that one of them shows four thousand rings, one for each year, and that counts have been made of eight thousand rings and more. These monarchs of the forest saw Egypt, the most ancient of all civilizations, rise, flourish, and perish. They were old when Cyrus, the Persian, conquered Babylon; old when the Israelites fled from Egypt; old when the mound-builders peopled this country; they date back to those dim days when man, emerging from the primeval stage, first began the ways of civilization. Along with the snow-clad Sierras

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and the Valley of the Yosemite, they have been the inspiration of many a California singer whose verse, all unmeant by him, has been one of the potent reasons of the unceasing pilgrimage to California from all parts of the earth, and multitudes of the pilgrims are greatly content to end their journeys there.

Schools

With respect to interest in education and the amount spent upon it California is in the forefront of the states. In 1910—the latest present available census report—California was the twelfth state in population, and judging from the number of settlers who flock to her annually this is at least her present rank. In 1916 she was fifth in her total state expenditures for public education, there being only four states, New York, Pennsylvania, Illinois, and Ohio, ahead of her. Indeed, taking the expenditures per capita she led all the states, with an expenditure of 50 per cent more per capita than the commonwealth next in rank. The enrollment in the public schools grew from 174,000 in 1883 to 604,000 in 1918, while in the latter year the state expenditures for all educational purposes were $37,000,000. The giant young State University had 205 students in 1883, but in 1919 it had outstripped all but one of the universities in the country, with an attendance of 9,000 students. The population is low in illiteracy despite the many foreigners and an undue proportion of Asiatics.

Hostility to Caste

The ever-present state pride is not content that the younger generation shall lose anything in the way of opportunity because of relative geographical isolation from the great centers. Most significant of all, the inter-

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est in education is only another form of expression of that democracy which is ever hostile to caste or special privilege and which realizes that the public schools, along with a free and independent press, are the two vital factors which make possible democratic government in this country. In comparisons of this nature it must always be remembered that the difference in state expenditures for education, either actually or proportionally, between the states west of the Alleghanies and north of the Ohio River line of latitude, and the remainder of the Union, is marked principally in the amount of funds devoted to higher education rather than that apportioned to the public schools. As a living force, both in educational and economic life, the state university has its present widest expression in the Middle West and West, although it originated in the South.

Spirit of Enterprise

What the economic future holds for California is even easier to see than a quarter of a century ago. The spirit of further development of all constructive and productive possibilities has a momentum which cannot be stayed. For its underlying impulse and initiative is in that inherent and conscious democracy of which California furnishes so remarkable a type. It is a democracy singularly devoid of the narrow provincialism which is so often the concomitant of local pride, alike in the small town and in the great center. It is a democracy which knows much travel especially in its own country, which has wide tolerance, free speech, and free thought. It is imbued likewise with a cosmopolitanism because of the state's position midway between the western nations and the Orient, which makes its people in great degree citizens of the world.

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The economic life of the future lies along the path of democracy. Our economic troubles today are largely because of our departure from the ways of democracy, especially in that unduly developed class consciousness which seeks its own betterment at the expense of all other classes; being thus the antithesis of that true democracy, which seeks first the general welfare of the many and is content to share therein.

There are various expressions of democracy although in every case it is the same in vital substance. The democracy of North Carolina differs from that of Kansas in outward form, the democracy of Wisconsin from that of Ohio, and the democracy of California from all of them. In a peculiar degree the democracy of California is in that triumphant stage which is a forerunner of the time when a knowledge of democracy shall cover the earth as the waters cover the sea. It is a prophecy of the world civilization that is to come.

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EPILOGUE

Community Feeling

With state after state, in these studies of the last quarter-century's development, economic and business advance seem to have turned upon the peoples' attitude toward two great issues or questions. They seem to be fundamental. Whatever the natural resources of a state, and whatever the stimulus from external conditions, progress has been slow and halting until these great questions have been settled rightly. The states which early took the right attitude on these fundamentals have forged ahead from the start.

One of the vital matters has been the transmutation of the spirit of individualism—a natural result of the vigorous independence bred in frontier communities—into the spirit of co-operation and community feeling. The French have a true saying that all men and all people have the defects of their qualities. Individualism made this country what it is and keeps it sound and wholesome amid all the disintegrating features of some elements of modern civilization.

Individualism is the essential quality which distinguishes us from the nations of the Old World, contented with things as they are rather than as they should be, sunk in apathy and often despair, or at all events burdened with the thoughts and ways of the past which check their aspirations for better things. Equally is individualism the one continuing cause of that national devotion to ideals without which as a nation we shall surely perish.

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Partners in the State

But if our country is to progress further, individualism must develop into co-operation. That has been shown again and again in these studies. In the case of North Carolina, of Wisconsin, of California, the successful solution of the problem of existence and progress was to be traced directly to the development of the spirit of team-play among the people of the state.

The change, moreover, is a change not so much in spirit as in the form of its manifestation. The individual citizen has lost no part of his capacity and disposition to think for himself, of his energy and resourcefulness, but he is learning to think in terms of the community as a whole. He regards himself not as a subject leaning upon a bureaucratic parental government, but as a partner in a state-wide enterprise. His contribution to the partnership venture is not obedience merely but intelligent and constructive activity.

Team-Play

The attitude of disciplined individualism finds its expression in the game which in its intense, sustained, organized struggle is peculiarly characteristic of the America of the present generation—football. A well-coached football team in one of our great universities sinks all thought of individual self that it may win for the glory of its college. To this end it submits to hard and grinding training in which obedience and discipline are the chief factors. Each member of the team seeks the common weal. He learns that success can be had only by teamwork and forgetfulness of self. He must subordinate his own ideas and his own wishes to those of the one in command. Yet in the last analysis when discipline and teamwork and obedience have had their say,

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it is still an unquenchable and indestructible individualism, though co-ordinated and controlled, that carries the ball over the goal. Such was the lesson which we learned.

The spirit here shown was manifested on a vaster scale in the Great War when the individualistic American soldier, his powers once disciplined, went up against the trained machine-like fighter of Germany and beat him at his own game.

The Middleman

One of the most notable evidences of the substantial development of community enterprise has been in connection with the distribution of farm products in state after state. Little strength has been wasted in mere denunciation of the middleman—as an economic parasite, etc. The shrewd farmers soon perceived that the middleman existed because there was a distinct place for him in the general scheme of things, and that current methods of distribution, uneconomical and inefficient, undoubtedly persisted because nothing better had as yet been developed.

The marketing of perishable food products is especially influenced by the peculiarities of human nature. The average consumer is unreliable as a steady and constant customer for food products. He has a tendency to seek some other source of supply, often without reason and without either warning to or consideration for the producer from whom he has been buying. Consumers, moreover, are a peripatetic race especially in a large city, and their constant shifting of residence means that the farmer must constantly find new customers which he rarely has the time, inclination, or ability to do. Household exigencies are often such that supplies are not taken

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by the consumer regularly, and the produce being usually of perishable nature must be sold at once to some stranger, not easy to find, or else be a total loss to the farmer. The matter of payments is often most unsatisfactory because housekeepers on the whole are given to credit rather than to cash purchases, and the margin of profit to the farmer is usually too small to permit this method with its customary proportion of losses.

Marketing Associations

Those farmers who attempted in any large way to market their products directly to the consumer quickly ran into hopeless difficulties in connection with bookkeeping and credits and all the machinery of distribution, which soon rendered their venture futile and inoperative. The common sequence was the farmers' seeking out some reliable middleman whose business it was to handle all the details of distribution.

There was, however, one other way out, namely, the establishment of co-operative organizations among the farmers by which they could do their own marketing in a large way and thus eliminate wastes and improve methods. In the beginning the farmer was not a ready convert to the principles of co-operation, that is, for any great length of time. It was easier to organize him than to have him stay organized. His lonely life on the farm bred an underlying suspicion in his nature that was easily aroused and not easily appeased. His individuality was generally far stronger than his class consciousness. But the idea of co-operation made constant headway and was much helped in its spread and permanence by the broadening effect upon the farmer's mental vision and temperament of rural free delivery of mail and the use of automobiles.

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Business Methods

We have noted the work of the co-operative organizations, especially in Wisconsin, North Carolina, and California. They are active in many other states. They are rapidly passing beyond the stage of sentimentality and enthusiasm to the substantial stage of strictly business methods and purposes. For they must make good by economic results else their own members soon lose faith in them. There has developed now all over the United States a complex and highly organized system of co-operative work in posting the producers as to the markets that need their goods and such prices and terms as may be had. It is suicidal to ship perishable goods to a market already glutted, and thus have them decay before they can be sold. Because of this vast and complicated system of co-operation among producers, stretching all over the country, fruits and vegetables, butter, eggs, and milk, are now to be obtained in all sections and in all seasons at prices which would not otherwise be possible.

We have arrived, that is to say, at that period in the life both of state and of nation when we can no longer live to ourselves alone. Our future lies along the lines of future development of the spirit expressed in teamwork and pulling together which found such signal and forceful expression during the war, and of which the co-operative marketing associations are a beginning.

Education and Freedom

Another of the vital matters in the growth of a state is its attitude toward education. The states that have progressed most notably have been distinguished for a systematic and continuous effort to improve the effectiveness and the quality of the individual citizen. The statement has been often made but little realized that Ameri-

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can democracy could not exist at all save for a free press and the public schools. Over and over again, in these studies, we have found that the capacity of a state to respond to the stimulus of opportunity or even of necessity has been conditioned upon the educational status of its people.

But education in its true sense is no longer a local affair. If it is to reach and aid all the people of the commonwealth it must be a state-wide matter. In a state where education is a matter principally of disunited localities, either in interest or in the appropriation of necessary funds, the percentage of literacy is always low.

Moreover, the value of education to any community or state lies as much in its nature as its extent. Education in Germany was probably more wide-spread than in any other country and illiteracy was rare. But there was something inherently wrong and vicious in a system which caused so many young boys to commit suicide because of failure to pass scholastic examinations, and which created a public sentiment that not only palliated but upheld the inhuman brutalities of the German troops during the Great War.

Patriotism

We are apt to think of patriotism as a sentiment, stirred largely by appeals to the higher side of our nature and exemplified chiefly in the sacrifices which a war always calls forth. Yet in the case of the German people we saw this sentiment degraded until it served as excuse for every form of brutality which was committed "for the Fatherland." So, too, we are prone to regard the sentiment of patriotism chiefly as something to be called forth by the need of protecting the land of

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our birth or adoption in the stress of battle and conflict. There comes often the bitter irony, when the conflict is over, that we revert from ideals of nation-wide sacrifice and fellowship to the Old Adam of political and class strife. If the war taught us anything it was that we need to revise and enlarge our ideas of patriotism so that in times of piping peace it shall embrace all the homely obligations of every-day life; likewise, that as we freely recognize the call of our country for all that we can give, her rulers shall make and keep our country worthy of living for as well as dying for.

Progress

This, after all, is the ultimate service of the right sort of education, that of keeping the community alive and progressive. China is the only one of all the ancient civilizations—Egypt, Babylon, Nineveh, Persia, Rome—which has been preserved to our day. Many things which we have discovered or invented anew were familiar to her in the dim historic past. Yet China has solved nothing and done nothing of vital and enduring moment. Her much-vaunted philosophy is a mere intellectual cult of words, childish in its phraseology and as remote from human life and its affairs as the distant stars in the Milky Way. Her wisdom, like that of extreme age whether in men or nations, is mere despair or mute submission to relentless fate. Her religion has degenerated into blind superstition, burdening and hampering every effort at advancement and progress. Her incalculable resources lie unheeded and almost untouched. Only within the past half century has it dawned upon some of her leading minds that her sole hope of advancement, indeed of continuance as a separate and independent nationality, lies in breaking com-

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pletely with the past and freeing herself from the swaddling-clothes of inheritance and tradition.

France is one of the oldest, most historic, most cultivated, most artistic countries in Europe. She has been one of the richest. In some lines of manufacture, those requiring taste and skill, she is pre-eminent. In others, more prosaic but more modern, she is a generation behind the times. Of internal development in the way of new construction and adaptation of old ways to newer and more improved methods there is woeful lack. Reverence for the past, its customs and its observances, hangs like a pall over economic and social life.

Thrift, essential and necessary within reason and constantly exalted by financial lights as the supreme virtue, is an immovable barrier to development and expansion when carried to the point of penuriousness. For it is perfectly obvious that business thrives upon spending and not upon saving. It is bitter irony, as well as tragedy, that the millions of francs laboriously saved up by thrifty French peasants and invested in Russian securities have been hopelessly lost, when their investment in internal improvements might still have been yielding increasing dividends.

Seeking Always That Which Is Better

In our own country it is a matter of common knowledge that certain states and communities which are oldest in time and experience are in some ways the least progressive in the ways of internal improvement and consequently in all business possibilities. They often lack those modern developments in sanitation, comforts, convenience, transportation, and education which are matters of course in many of the young and hustling commonwealths beyond the Mississippi River.

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The one thing that can keep a community, state, or nation from stagnating in this way is education. You cannot have progress without that noble discontent which seeks always that which is better. Education of the type developed in some of these new commonwealths, wide-spread, broad, thorough, and consecrated to the public welfare, is the tonic element that fights off the fatal lethargy of age and prosperity and keeps the community always young.

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